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THE

PHILOSOPHY OF SLEEP.

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BY

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TO

JOHN K. MACNISH, Esq.

PRESIDENT OF THE FACULTY OF PHYSICIANS

AND SURGEONS OF GLASGOW,

THIS WORK

IS AFFECTIONATELY INSCRIBED,

BY HIS SON,

THE AUTHOR.

PREFACE.

THE present Treatise is an attempt to supply what has hitherto been a desideratum in English literature, *viz.* a complete account of Sleep. The undertaking, though not very extensive, has been more difficult than would, at first sight, be imagined, owing chiefly to the extreme diversity of opinion that exists with regard to the nature of Sleep. There is scarcely a single fact on which any two authors agree; nor does this difference extend merely to the metaphysical consideration of the subject, for the medical writers are, in every respect, as much divided in their views as the metaphysicians, and the most contradictory statements meet us at almost every step. Under such circumstances, the Author is far from supposing that he has produced any thing like a perfect history of Sleep, but he has endeavoured to do so as far as lay in his power, both by appealing to his own observation, and to the experience of other writers. With regard to the theory pervading the work, opinions, of course, will vary. It has been

adopted, not only as being in itself more probable than the prevailing doctrines of the schools, but as affording an easier explanation of all the phenomena of Sleep than any other with which he is acquainted.

Of the cases which have been introduced, some are drawn from sources not very accessible, and a number are now published for the first time. For two very singular cases of the latter description, he is indebted to the kindness of a distinguished friend, Mr. Moir of Musselburgh. On every disputed fact, he has adopted that opinion which his own observation pointed out as correct, and wherever this was deficient, he has been guided by analogy. It is probable that the view taken of the nervous system, may be objected to by some readers; in answer to which, it may be stated, that this hypothesis, besides being rendered probable by the strongest evidence, is now very generally adopted by the Continental physiologists. In France, it is almost universally taught in the medical schools, and is gaining ground so fast in Great Britain, that, in a few years, it will, in all probability, be as firmly established here as on the Continent.

Glasgow, 25*th September*, 1830.

CONTENTS.

CHAPTER I. PAGE

Introduction, ... 1

CHAPTER II.

The Sensorial Power, ... 8

CHAPTER III.

Sleep in General, ... 12

CHAPTER IV.

Use of Sleep, ... 44

CHAPTER V.

Sleep of Plants, ... 47

CHAPTER VI.

Dreaming, ... 50

CHAPTER VII. PAGE
Management of Dreaming, ... 98

CHAPTER VIII.
Prophetic Power of Dreams, ... 101

CHAPTER IX.
Night-Mare, ... 124

CHAPTER X.
Day-Mare, ... 148

CHAPTER XI.
Sleep-Walking, ... 151

CHAPTER XII.
Sleep-Talking, ... 168

CHAPTER XIII.
Sleeplessness, ... 177

CHAPTER XIV.
Sleep from Cold, ... 188

CHAPTER XV.
Waking Dreams, ... 196

CHAPTER XVI.
Reverie, ... 199

CHAPTER XVII. PAGE

Abstraction,.....202

CHAPTER XVIII.

Drowsiness,.....211

CHAPTER XIX.

Protracted Sleep,.....215

CHAPTER XX.

Trance,.....222

CHAPTER XXI.

Death,.....233

CHAPTER XXII.

Sleep of the Soul,.....235

CHAPTER XXIII.

General Management of Sleep,.....237

CHAPTER I.

INTRODUCTION.

My spirit sleeps amid the calm,
The sleep of a new delight;
And hopes that she ne'er may wake again,
But for ever hang o'er the lovely main,
And adore the lovely night.
Scarce conscious of an earthly frame,
She glides away like a lambent flame,
And in her bliss she sings;
Now touching softly the Ocean's breast,
Now 'mid the stars she lies at rest,
As if she sailed on wings.

The Isle of Palms.

Sleep is the intermediate state between life and death; life being regarded as the frame in the full enjoyment of its functions, and death as that of their total suspension.

Sleep is variously modified, as we shall fully explain hereafter, by health and disease. In sleep, unaccompanied by dreaming, consciousness does not exist; at least, there is not the slightest proof of its

existence. We are, therefore, justified in asserting, that such sleep is a temporary metaphysical death, although not an organic one; the heart and lungs performing their offices with their accustomed regularity, under the control of the involuntary muscles.

The sleep of health is full of tranquillity. In such a state we remain for hours at a time in unbroken repose, nature banquetting on its sweets, renewing its lost energies, and laying in a fresh store for the succeeding day. This accomplished, slumber vanishes like a vapour before the rising sun; languor has been succeeded by strength; and all the faculties, mental and corporeal, are recruited. In this delightful state, man assimilates most with that in which Adam sprang from his Creator's hands, fresh, buoyant, and vigorous; rejoicing as a racer to run his course, with all his appetencies of enjoyment on edge, and all his feelings and faculties prepared for exertion.

Reverse the picture, and we have the sleep of disease. It is short, feverish, and unrefreshing, disturbed by frightful or melancholy dreams. The pulse is agitated, and, from nervous excitation, there are frequent startings and twitchings of the muscles. Night-mare presses like an incarnation of misery upon the frame—imagination, distempered by its connection with physical disorder, ranging along the

gloomy confines of terror, holding communication with hell and the grave, and throwing a discolouring shade over human life.

" Night," observes the poet Montgomery, " is the time for sleep;" and assuredly the hush of darkness as naturally courts to repose as meridian splendour flashes on us the necessity of our being up at our labour. In fact, there exists a strange, but certain sympathy between the periods of day and night, and the performance of particular functions during these periods. That this is not the mere effect of custom, might be readily demonstrated. All nature awakes with the rising sun. The birds begin to sing; the bees to fly about with murmurous delight. The flowers which shut under the embrace of darkness, unfold themselves to the light. The cattle arise to crop the dewy herbage; and " man goeth forth to his labour until the evening." At close of day, the reverse of all this activity and motion is observed. The songs of the woodland choir, one after another, become hushed, till at length twilight is left to silence, with her own star and her falling dews. Action is succeeded by listlessness, energy by languor, the desire of exertion by the inclination for repose. Sleep, which shuns the light, embraces darkness, and they lie down together most lovingly under the sceptre of midnight.

From the position of man in society, toil or employment of some kind or other is an almost necessary concomitant of his nature—being essential to healthy sleep, and consequently to the renovation of our bodily organs and mental faculties. But as no general rule can be laid down as to the quality and quantity of labour best adapted to particular temperaments, so neither can it be positively said how many hours of sleep are necessary for the animal frame. When the body is in a state of increase, as in the advance from infancy to boyhood, so much sleep is required, that the greater portion of existence may be fairly stated to be absorbed in this way. It is not mere repose from action that is capable of recruiting the wasted powers, or restoring the nervous energy. Along with this is required that oblivion of feeling and imagination which is essential to, and which in a great measure constitutes, sleep. But if in mature years the body is adding to its bulk by the accumulation of adipose matter, a greater tendency to somnolency occurs than when the powers of the absorbents and exhalents are so balanced as to prevent such accession of bulk. It is during the complete equipoise of these animal functions that health is enjoyed in greatest perfection, for such a state pre-supposes exercise, temperance, and a tone of the stomach quite equal to the process of digestion.

Sleep and stupor have been frequently treated of by physiological writers as if the two states were synonimous. This is not the case. In both there is insensibility, but it is easy to awake the person from sleep, and difficult, if not impossible, to arouse him from stupor. The former is a necessary law of the animal economy; the latter is the result of diseased action.

Birth and death are the Alpha and Omega of existence; and life, to use the language of Shakspeare, "is rounded by a sleep."

When we contemplate the human frame in a state of vigour, an impression is made on the mind that it is calculated to last for ever. One set of organs is laying down particles, and another taking them up with such exquisite nicety, that for the continual momentary waste there is continual momentary repair; and this is capable of going on with the strictest equality for half a century.

What is life? These bodies are called living in which an appropriation of foreign matter is going on: death is where this process is at an end. When we find blood in motion, the process of appropriation is going on. The circulation is the surest sign of life. Muscles retain irritability for an hour or two after circulation ceases, but irritability is not life. Death is owing to the absence of this process of appropriation.

In sleep, as we shall more fully detail hereafter, many of the animal functions go on, more especially the vital ones of respiration and circulation. The one is dependent on the other, and impediments to either will cause death. Feeling and volition are at an end whenever the circulation ceases.

Bodies, however, may be alive without thought, feeling, or voluntary motion. Of actual death there is only one unequivocal sign, which is putrefaction.

Notwithstanding the renovating influence of sleep, which apparently brings up the lost vigour of the frame to a particular standard, there is a power in animal life which leads it almost imperceptibly on from infancy to second childhood, or that of old age. This power sleep, however healthy, is incapable of counteracting. The skin wrinkles, and every where shows marks of the ploughshare of Saturn; the adipose structure dissolves; the bones become brittle; the teeth have decayed or dropped out; the eye loses its exquisite sensibility to sight; the ear to sound; and the hair is bleached to whiteness. These are accompanied with a general decay of the intellectual faculties; there is a loss of memory, and less sensibility to emotion; the iris hues of fancy subside to twilight; and the sphere of thought and action is narrowed. The principle of decay is implanted in our nature, and cannot be counteracted. Few people,

however, die of mere decay, for death is generally accelerated by disease. From sleep we awake to exertion—from death not at all, at least on this side of time. Methuselah in ancient, and Thomas Parr in modern times ate well, digested well, and slept well; but at length they each died. Death is omniverous: "Is there not," says Job, "an appointed time to man upon earth? are not his days also like the days of an hireling." "He shall return no more to his house, neither shall his place know him any more."

CHAPTER II.

THE SENSORIAL POWER.

> Mysterious principle of life! by thee
> We think, we feel, we move, we hear, we see:
> Sailing awhile on thy uncertain wave,
> The harbour that receives us is the grave.
>
> *Anon.*

THE sensorial power is merely another term for the sensibility and energy displayed by the nervous system. This system consists of four grand divisions. 1. The *Brain*, appropriated to the mind. 2. The *Medulla Oblongata*, appropriated to hearing, seeing, smell, and taste. 3. The *Medulla Spinalis*, appropriated to touch and voluntary movement. 4. The *Great Sympathetic Nerve*, appropriated to the thoracic and abdominal viscera. Formerly these divisions were all included under one head; and it was supposed that all the phenomena resulting from them were primarily to be referred to the brain, which was looked upon as the grand source of nervous energy, and the others merely its branches or subor-

dinate ramifications. But this doctrine is now almost universally abandoned by physiologists. It appears that the four great divisions are perfectly distinct; that the one does not originate from the other, but that each constitutes a system by itself, and rules over its own peculiar class of functions. We think by the brain; we hear, see, smell, and taste by the nerves of the medulla oblongata; we move and feel by those of the medulla spinalis; while the heart throbs, and the stomach, intestines, liver, &c. act by means of the great sympathetic nerve. All these various actions are performed by the sensorial power emanating from the nervous system. This power, however, is not uniform in its operation, but capable of being increased or diminished, and, in some cases, of being suspended altogether. When it is increased, all our faculties acquire an accession of sensibility; when it gets exhausted, their powers decline in a corresponding degree, and fall at last into a state of torpor or sleep. It is the active condition of this power which keeps them awake; and their vigour at any given period is in exact proportion to the copiousness with which it is diffused over them. As, however, the powers of voluntary motion of the external senses, and of the mind, are not always in operation, it follows, that the sensorial power, so far as they are concerned, is similarly circumstanced. The habitual

exertion of these faculties exhausts it; and a certain portion of *inertia* or slumber is necessary to restore the vigour it had lost during its active condition. It is also to be remarked, that one organ cannot enjoy an excess of this power without depriving another of its due share. Thus, when the mental faculties are intensely occupied, or, in other words, when an excessive quantity of sensorial energy is directed to them, we are in a great measure insensible to external impressions; hence Newton, in a fit of intense thought, thrust his mistress's finger into his tobacco pipe, and Archimedes remained unmoved during the noise and slaughter of captured Syracuse. In like manner, strong bodily efforts remove the acuteness of mental sensations, by occasioning a more equal distribution of sensorial power, and preventing it from accumulating too strongly on one point. The only functions in which it is never dormant are those of animal life; and so long as we exist, it animates the heart and other viscera, thereby keeping up circulation, digestion, absorption, and the other vital powers. The cause of this difference is obvious. Those functions are essential to existence; and, by a wise law of nature, the sensorial power is directed to them, in an untired and ceaseless stream, so long as life endures. But even in their case its activity is not uniform, but liable to be modified by many of these circumstances which

affect it in the other faculties, over which its dominion is more precarious. In common with the latter, the vital functions may have an excessive or a diminished supply, and the phenomena thence resulting will be of a kindred nature. The only difference is, that in the one case the sensorial power may be completely dormant or exhausted, and the functions which it regulates suspended: in the other, it can never be so altogether, because its entire cessation, even for the shortest period, would destroy life.

CHAPTER III.

SLEEP IN GENERAL.

Thou silent power! whose welcome sway
Charms every anxious thought away;
In whose divine oblivion drowned,
Sore pain and weary toil grow mild,
Love is with kinder looks beguiled,
And grief forgets her fondly cherished wound.

AKENSIDE.

SLEEP exists in two states—in the complete and incomplete. In the former, the sensorial power of the brain, medulla oblongata, and medulla spinalis is suspended, while that of the sympathetic nerve undergoes no suspension. In other words, the functions of voluntary motion of the senses and of the mind are in abeyance, while those essential to life, go on as usual. To produce such a suspension in the above faculties, their sensorial energy must be exhausted; it no longer flows to them, as in the waking state, and a temporary cessation in their wonted actions is the inevitable consequence. The

only powers not arrested, are the involuntary ones, such as circulation, secretion, absorption, respiration, and digestion. Towards them the sensorial power is for ever directed from the cradle to the grave; and when it ceases to animate them, death ensues. Such is the case in complete sleep, but where it is incomplete, as in dreaming, only certain of the mental functions are arrested, while others continue to act as usual. In this latter state, also, the organs of sense and volition, though generally, are not necessarily suspended, as may be seen in night-mare, and many cases of sleep-talking and somnambulism.

The third of the above conditions, or that which supposes a suspension in the powers of the mind, has been denied by some philosophers, especially the Cartesians, who imagine that the mental faculties are never for a moment inactive, but pursue incessantly, whether we be asleep or awake, their career of thought. This doctrine, however, although maintained by some of our best metaphysical writers, is exceedingly unsatisfactory: it receives no countenance from our own consciousness, and seems unsusceptible of proof of any kind.

There ought to be no difficulty in admitting that the mental powers may cease to act in sleep, for the same thing undoubtedly happens in various other

conditions. It is impossible to conceive any mental operation taking place during many cases of catalepsy, or an apoplectic attack. In such instances, as well as in the lethargy attendant upon persons recovered from drowning, hanging, or suffocation from noxious vapours, there cannot be a question that the functions of the mind are, for the time being, at an end. This, it is true, does not prove that the same circumstance occurs in sleep, but it shows that there is nothing impossible in these faculties being suspended for a season; and as we have no evidence that they continue to operate during perfect sleep, we are bound to believe that at this time they really are suspended.

Sleep, being a natural process, takes place in general without any very apparent cause. It becomes, as it were, a habit, into which we insensibly fall at stated periods, as we fall into other natural or acquired habits. But it differs from the latter in this, that it cannot in any case be entirely dispensed with, although by custom we may bring ourselves to do with a much smaller portion than we are usually in the practice of indulging in. In this respect it bears a strong analogy to the appetite for food or drink. It has a natural tendency to recur every twenty-four hours, and the periods of its accession coincide with the return of night.

But though sleep becomes a habit into which we would naturally drop without any obvious, or very easily discovered cause, still we can often trace the origin of our slumbers; and we are all acquainted with many circumstances which either produce or heighten them. I shall mention a few of these causes.

Heat has a strong tendency to produce sleep. We often witness this in the summer season, sometimes in the open air, but more frequently at home, and, above all, in a crowded church. An intolerable lassitude falls over the spirit; we are unable to walk, or move, or think; our eyes become heavy and languid; we are seized with yawning, and reclining upon the first suitable object which presents itself, drop into a profound slumber. This is perhaps the most rapid of all sleep, excepting that from apoplexy, or narcotics. The mind seems in a few minutes to glide away, and sinks into a state of overpowering and almost instantaneous oblivion. The slumber, however, not being a natural one, and not occurring at the usual period, is seldom long: it rarely exceeds an hour, and when the person awakes from it, so far from being refreshed, he is usually dull, thirsty, and feverish, and finds more than common difficulty in getting his mental powers into their usual state of activity.

A heated church and a dull sermon are almost

sure to provoke sleep. There are few men whose powers are equal to the task of opposing the joint operation of two such potent influences. They act on the spirit like narcotics, and the person seems as if involved in a cloud of aconite or belladonna. The heat of the church might be resisted, but the sermon is irresistible. Its monotony falls in leaden accents upon the ear, and soon subdues the most powerful attention. Variety, whether of sight or sound, prevents sleep, while monotony of all kinds is apt to induce it. The murmuring of a river, the sound of the Eolian harp, the echo of a distant cascade, the ticking of a clock, the hum of bees under a burning sun, and the pealing of a remote bell, all exercise the same influence. So conscious was Boerhaave of the power of monotony, that in order to procure sleep for a patient, he directed water to be placed in such a situation as to drop continually on a brass pan. When there is no excitement, sleep is sure to follow. We are all kept awake by some mental or bodily stimulus, and when that is removed our wakefulness is at an end. Want of stimulus, especially in a heated atmosphere, produces powerful effects, but where sufficient stimulus exists, we overcome the effects of the heat, and keep awake in spite of it. Thus, in a crowded church, where a dull, inanimate preacher would throw the

congregation into a deep slumber, such a man as Chalmers would keep them in a state of keen excitement. He would arrest their attention, and counteract whatever tendency to sleep would otherwise have existed. In like manner, a prosing monotonous, long-winded acquaintance is apt to make us doze, while another of a lively, energetic conversation keeps us brisk and awake. It will generally be found that the reasoning faculties are those which are soonest prostrated by slumber, and the imaginative the least so. A person would more readily fall asleep if listening to a profound piece of argumentation, than to a humorous or fanciful story; and probably more have slumbered over the pages of Bacon and Locke, than over those of Shakspeare and Milton.

Cold produces sleep as well as heat, but to do so, a very low temperature is necessary, particularly with regard to the human race, for when cold is not excessive, it prevents instead of occasioning slumber: in illustration of which, I may mention the case of several unfortunate women, who lived thirty-four days in a small room overwhelmed with the snow, and who scarcely slept during the whole of that period. In very northern and southern latitudes, persons often lose their lives by lying down in a state of drowsiness occasioned by intense cold. The celebrated Dr. Solander nearly perished from this circumstance;

and as his case is one of great interest, I have inserted it in another part of the work.

The finished gratification of all ardent desires has the effect of inducing slumber: hence, after any keen excitement, the mind becomes exhausted, and speedily relapses into this state. Attention to a single sensation has the same effect. This has been exemplified in the case of all kinds of monotony, where there is a want of variety to stimulate the ideas, and keep them on the alert. "If the mind," says Cullen, "is attached to a single sensation, it is brought very nearly to the state of the total absence of impression;" or, in other words, to the state most closely bordering upon sleep. Remove those stimuli which keep it employed, and sleep ensues at any time.

Any thing which mechanically determines the blood to the brain, has the same effect, such as whirling round for a great length of time, ascending a lofty mountain, or swinging to and fro. The first and last of these actions give rise to much giddiness, followed by intense slumber, and at last by death, if they be continued too long. By lying flat upon a mill-stone while performing its evolutions, sleep is soon produced, and death, without pain, would be the result, if the experiment were protracted sufficiently. Lunatics are said to be much less affected by swinging, than other persons; and accordingly it

is often used to discover whether madness be real or only feigned. Apoplexy, which consists of a turgid state of the cerebral vessels, produces perhaps the most complete sleep that is known, in so far that, while it continues, it is utterly impossible to waken the individual: no stimulus, however powerful, has any influence in arousing his dormant faculties. When, however, the cerebral determination is the result of acute disease, and does not go the length of oppressing the brain, sleep is prevented, and an accumulation of sensorial power takes place. This is seen in fevers and various other disorders.

The power of narcotics is hardly less remarkable. Their operation is a gradual one. At first a slight drowsiness comes on, succeeded by a complete suspension of the intellectual powers, and of the organs of the senses and voluntary motion. Thought, muscular movement, and sensation of every kind, are suspended. It is truly a complete slumber—no one faculty, save the vital organs, being in operation.

Full-bodied phlegmatic persons are naturally much better sleepers than others. This I conceive to proceed from two causes; 1*st*, from the greater pressure of blood on their brain; and 2*d*, from their natural dispositions being less airy, sensitive, and irritable than those of opposite temperaments. Their minds are usually of an obtuser cast, their

sensibilities less acute, and their susceptibility to impressions of all kinds of a far inferior description. They have more of the animal in their nature; and impressions which would operate with keen power upon finer spirits, produce no effect upon their impassive frames of mind.

Too feeble a cerebral circulation has precisely the same effect as the opposite state. Thus, excessive loss of blood excites sleep; and, generally speaking, there is less determination of blood to the brain in slumber than in the waking state.

A heavy meal, especially if the stomach is at the same time weak, is apt to induce sleep. In ordinary circumstances, the sensorial power residing within this viscus is sufficient to carry on its functions, but when an excess of food is thrown upon it, it is then unequal to furnish, from its own resources, the necessary powers of digestion. In such a case it draws upon the whole body—upon the chest, the limbs, &c. These parts supply it with the sensorial power of which it is deficient; and by their aid it is able to perform that which by its own unassisted means it never could have accomplished. But mark the consequences of this accommodation! The granters of the draft suffer by their own generosity; and by enabling the stomach to get out of difficulty, they get into it themselves. The extremities become

cold, the respiration heavy and stertorous, and the brain torpid. In consequence of the state of the latter organ, sleep ensues. It had parted with that portion of sensorial energy which kept it active and awake; and by supplying another viscus with the means of getting on, is thrown itself into a state of temporary weakness and oblivion.

When, therefore, the sensorial power which keeps our faculties in activity is exhausted, we naturally fall asleep. As the exhaustion of this power, however, is a gradual process, so is that of slumber. We glide insensibly into it, as from life into death; and while the mind remains poised, as it were, between sleep and the opposite condition, it is pervaded by a strange confusion which almost amounts to mild delirium: the ideas dissolve their connection from it one by one; those which remain longest behind are faint, visionary, and indistinct; and its own essence becomes so vague and diluted, that it melts away into the nothingness of slumber, as the morning vapours are blended with the surrounding air by the solar heat. Previous to the accession of sleep, a feeling of universal lassitude prevails. This sensation heralds in the phenomena of slumber, and exhibits itself in yawning, heaviness of the eyes, indifference to surrounding objects, and all the characteristics of fatigue. If the person be seated, his head nods and droops;

and, in all cases, the muscles become relaxed, and the limbs thrown into that state most favourable for complete muscular inaction. The lying position is, consequently, that best adapted for sleep, and the one which is intuitively adopted for the purpose. The organs of the senses do not relapse into simultaneous repose; but suspend their respective functions gradually and successively;—sight, taste, smell, hearing, and touch parting with sensation in the order in which they here stand, and gliding insensibly away. In the same manner, the muscles do not become simultaneously relaxed—those of the limbs giving way first, then those of the neck, and lastly the muscles of the spine. Nor do the external senses, on awaking, recover all at once their usual vigour. We, for some seconds, neither hear, nor see, nor smell, nor taste, nor touch with our usual acuteness. Ordinary sights dazzle our eyes; ordinary sounds confuse our ears; ordinary odours, tastes, and sensations, our nose, our tongue, and our touch. They awake successively, one after its fellow, and not in the same instant.

Sleep also produces important changes in other parts of the system. The rapidity of the circulation is diminished, and, as a necessary consequence, that of respiration; but the latter function does not part otherwise with any of its customary vigour; on the

contrary, it acquires an accession of energy, breathing being more full than in the waking state; the pulse also, though slower, is stronger. Animal heat is slightly reduced upon the surface, while digestion, absorption, and nutrition, all proceed with increased energy. On this account, sleep is the period in which the regeneration of the body chiefly takes place, and in which nourishment is most copiously infused into the blood. This law also governs the vegetable kingdom, the productions of which increase more during the night than at any other period of their existence. The intellectual and voluntary powers being dormant, is the obvious cause why some of the functions, and the stomach among others, acquire an increase of action, for the sensorial power which belongs to the former being withdrawn from them for a season, is directed to other channels. Were there even no augmentation of power given to the nutritive process at this period, the body would be more thoroughly strengthened than when awake, for all those actions which weaken it in the latter condition are at rest, and it remains in a state of quietude. If there be any parts in which the vigour of the vascular action is diminished, they are the brain and organs of volition. The activity of the former is increased by a vigorous flow of blood to it, and consequently when it is comparatively inert, as in sleep,

the sanguineous current must be somewhat diminished.* The latter, by being inert, also requires less vascular action, as is shown by the lower temperature of the surface which takes place during the slumbering state. At the same time, although there is no increase of heat on the surface, the perspiration is augmented. According to Sanctorius, a person sleeping some hours undisturbed, will perspire insensibly twice as much as one awake. This tendency of sleep to produce perspiration, is strikingly exhibited in diseases of debility, or where there is acid in the stomach; in which cases, it is particularly apt to ensue; whence the nocturnal sweats so prevailing, and so destructive in all cachectic affections. Sanctorius farther states that the insensible perspiration is not only more abundant, but less acrimonious during sleep than in the waking state; that if diminished during the day, the succeeding sleep is disturbed and broken; that the diminution in consequence of too short a sleep, disposes to fever, unless the equilibrium is established on the following day by a more copious perspiration. Owing to the nocturnal

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* There is a case related by Blumenbach of a person who had been trepanned, and whose brain was observed to sink when he was asleep, and to swell out when he was awake—a proof of the diminished circulation in that organ during the sleeping state.

sweats, the body is always somewhat lighter when we get up in the morning than when we lie down at night.

M. Castel observes,* that the greater part of animals sleep longer in winter than in summer. This fact, founded upon nature, should be converted into a law of health for man. It is precisely on account of perspiration that in the first of these seasons sleep is more necessary than in the second. In the one season, the want of perspiration during day is furnished in sleep; in the other, the diurnal sweat supplies that of the night, and renders much sleep less necessary. In other words, during summer the perspiration is so much excited by atmospheric temperature, that a few hours are sufficient to give issue to the fluids which have to be expelled by this means. For the same reason, the inhabitants of very cold climates sleep more than those who live in the warmer latitudes.

Animals which prey by night, such as the cat, the owl, &c., pass the greater part of their time in sleep, while those that do not are longer awake than asleep. They slumber during a part of the night, and remain awake so long as the sun continues

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* "Journal Complimentaire."

above the horizon. The propensity of the former class of animals to sleep in the day-time seems to proceed from the structure of their eyes, as they see much better in darkness than light, and consequently pass in slumber that period in which their vision is of least avail to them.

From the increased irritability of the frame, and relaxed state of the cutaneous vessels during sleep, the system is peculiarly liable to be acted upon by all impressions, especially of cold; and those who fall asleep exposed to a current of air, are far more liable to feel the bad consequences thereof, than if they were broad awake. By a law of nature, the sensibility of the system is increased by any suspension of the mental or voluntary powers, for the same reason that it is diminished so soon as these powers resume their actions.

On awaking from sleep, the secretions of the lungs, kidneys, and salivary glands are more viscid than during day. The cause of this is obvious; not being evacuated for several hours, their thinner portions are absorbed: hence, the urine is high-coloured and sedimentous, the saliva viscid, and the phlegm from the lungs and trachea thick and tough. All these secretions, in common with those of the nostrils, ears, eyes, &c., are more scanty during sleep than at other times. An exception, however, to this

remark, so far as the urinary secretion is concerned, sometimes occurs in the case of drunkards, who often make water much more copiously at night than in the day-time.

The stature of the body is greater when we awake in the morning than when we lie down at night. Mr. Wasse, Rector of Aynho, in Northamptonshire, having measured a great many sedentary people and labourers of all ages and shapes, found the difference in this respect to be nearly an inch. This circumstance is owing to the state of the interverbral cartilages, which yield in some measure to the weight of the body in the erect posture, and recover their elasticity during the period of repose when this pressure is taken off them.

A priori, we might expect that the pupil of the eye would be largely dilated during sleep, in consequence of the light being shut out, but the reverse is the case. On opening the eye-lid cautiously, it is seen to be contracted; it then quivers with an irregular motion, as if disposed to dilate, but at length ceases to move, and remains in a contracted state till the person awakes.

In talking of the influence of sleep upon the body, the circumstance of stertorous breathing, or snoring, to which some persons are addicted, is worthy of remark. It will be found that such individuals are

either of a stout apoplectic make; that they snuff excessively; or sleep with their mouths open. Stertor, or snoring, is a symptom of determination of blood to the head; and whenever there is a tendency to cerebral congestion, it will be found a pretty constant attendant. Snuffing, by obstructing the nasal passages, and compelling the person to breathe through the mouth, has often the same effect; and if he respires in the latter manner, whether he snuffs or not, more or less stertor generally ensues.

I have alluded to yawning as one of the symptoms which usher in sleep, but it follows as well as precedes this state. It seems an effort of nature to restore the just equilibrium between the flexor and extensor muscles. The former have a natural predominancy in the system; and on being fatigued, we, by an effort of the will, or rather by a species of instinct, put the latter into action for the purpose of redressing the balance and poising the respective muscular powers. We do the same thing on awaking, or even on getting up from a recumbent posture—the flexors in such circumstances having prevailed over the extensors, which were in a great measure inert.

The degree of profoundness of sleep differs greatly in different individuals. The repose of some is extremely deep; that of others quite the reverse. The

former will scarcely obey the roar of a cannon; the latter will start at the chirping of a cricket, or the faintest dazzling of the moonbeams. Man is almost the only animal in whom much variety is to be found in this respect. The lower grades are distinguished by a certain character so far as their slumber is concerned, and this character runs through the whole race—thus, all hares, cats, &c. are light sleepers; all bears, turtles, badgers, &c. are the reverse. In man, the varieties are infinite. Much of this depends upon the temperament of the individual, and much upon education.

A heavy-minded phlegmatic person is a great sleeper: he not only slumbers long, but profoundly, and is insensible to very powerful impressions. A person of an irritable, nervous, hypochondriac temperament is the reverse of all this. He lulls himself to rest with difficulty, and is easily aroused from it. The slightest sound, the feeblest glimmer of light reflected upon him, breaks the enchantment of his repose, and restores him to wakefulness.

The profoundness of sleep differs also during the same night. For the first four or five hours, the slumber is much heavier than towards morning. The cause of such difference is obvious, for we go to bed exhausted by previous fatigue, and consequently enjoy sound repose, but in the course of a few hours,

the necessity for this gradually abates, and the slumber becomes much lighter. From this circumstance, dreams are much more apt to ensue in the morning than in the early part of the night.

Persons who are much in the habit of having their repose broken, seldom sleep either long or profoundly, however much they may be left undisturbed. This is shown in the case of soldiers and seamen, mothers, nurses, and keepers.

The position usually assumed in sleep has been mentioned; but sleep may ensue in any posture of the body: persons fall asleep on horseback, and continue riding in this state for a long time, without being awakened. Horses sometimes sleep for hours in the standing posture; and the circumstance of somnambulism shows that the same thing may occur in the human race.

Disease exercises a powerful influence upon sleep. All affections attended with acute pain prevent it, in consequence of the undue accumulation which they occasion of sensorial power. This is especially the case where there is much determination of blood to the head, as in phrenitic affections, and fevers in general. The active or waking state of the system is kept up by an increased impetus of arterial blood to the brain. In sleep, therefore, as I have already stated, there is less determination to that organ than in the

waking state. This is invariably the case in healthy slumber, for these cases of profound sleep arising from apoplexy, or similar causes, such as drunkenness, or a heavy meal, do not come under this denomination. Sleep is always much disturbed in water of the chest. In this disease, the person frequently starts awake with a feeling of much oppression, and difficulty of breathing, which sensation is so characteristic, that when it occurs in doubtful cases of the disease, we may, with considerable certainty, declare that hydrothorax exists. Such was the opinion of Dr. Cullen, who farther states, that he has not found this symptom attending the empyema, or any other disease of the thorax; and, therefore, when it attends a difficulty of breathing, attended with any, the smallest symptom, of dropsy, he has had no doubt in concluding the presence of water in the chest; and has always had his judgment confirmed by the symptoms which afterwards appeared. Almost every disease affects sleep, more or less; some preventing it altogether, some limiting the natural proportion, some inducing fearful dreams, and all acting with a power proportioned to the direct or indirect influence, which they exercise upon the sensorium.

Sleep is much modified by habit. Thus, an old artillery-man often enjoys tranquil repose, while the

cannon are thundering around him; an engineer has been known to fall asleep within a boiler, while his fellows were beating it on the outside with their ponderous hammers; and the repose of a miller is no ways incommoded by the noise of his mill. Sound ceases to be a stimulus to such men, and what would have proved an inexpressible annoyance to others, is by them altogether unheeded. It is common for carriers to sleep on horseback, and coachmen on their coaches. During the battle of the Nile, some boys were so exhausted, that they fell asleep on the deck, amid the deafening thunder of that dreadful engagement. Nay, silence itself may become a stimulus, while sound ceases to be so. Thus, a miller being very ill, his mill was stopped that he might not be disturbed by its noise, but this, so far from inducing sleep, prevented it altogether; and it did not take place till the mill was set a-going again. For the same reason, the proprietor of some vast iron-works, who slept close to them amid the incessant din of hammers, forges, and blast furnaces, would awake if there was any cessation of the noise during the night.

The effects of habit may be illustrated in various other ways. "If a person, for instance, is accustomed to go to rest exactly at nine o'clock in the evening, and to rise again at six in the morning,

though the time of going to sleep be occasionally protracted till twelve, he will yet awake at his usual hour of six, or if his sleep be continued by darkness, quietude, or other causes, till the day be farther advanced, the desire of sleep will return in the evening at nine."

If there is a necessity for our getting up at a certain hour, we have, in consequence of the anxious state of the mind, more than usual difficulty in falling asleep, and when we do so, we are almost sure to awake at, or before, the stipulated time.

Seamen and soldiers on duty can, from habit, sleep when they will, and wake when they will. The Emperor Napoleon was a striking instance of this fact. Captain Barclay, when performing his extraordinary feat of walking 1000 miles in as many successive hours, obtained at last such a mastery over himself, that he fell asleep the instant he lay down. Some persons cannot sleep from home, or on a different bed from their usual one: some cannot sleep on a hard, others on a soft bed. A low pillow prevents sleep in some, a high one in others. The faculty of remaining asleep for a great length of time, is possessed by some individuals. Such was the case with Quin, the celebrated player, who could slumber for twenty-four hours successively—with Elizabeth Orvin, who spent three-fourths of her life

in sleep—with Elizabeth Perkins, who slept for a week or a fortnight at a time—with Mary Lyall, who did the same for six successive weeks—and with many others, more or less remarkable.

A phenomenon of an opposite character is also sometimes observed, for there are individuals who can subsist upon a surprisingly small portion of sleep. The celebrated General Elliot was an instance of this kind: he never slept more than four hours out of the twenty-four. In all other respects, he was strikingly abstinent; his food consisting wholly of bread, water, and vegetables. In a letter communicated to Sir John Sinclair, by John Gordon, Esq. of Swiney, Caithness, mention is made of a person, named James Mackay, of Skerray, who died in Strathnaver in the year 1797, aged ninety-one: he only slept, on an average, four hours in the twenty-four, and was a remarkably robust and healthy man. Frederick the Great, of Prussia, and the illustrious surgeon, John Hunter, only slept five hours during the same period; and the sleep of the active-minded is always much less than that of the listless and indolent. The celebrated French General Pichegru informed Sir Gilbert Blane, that during a whole year's campaigns, he had not above one hour's sleep in the twenty-four. Mr. Gooch gives an instance of a man, who slept only for fifteen

minutes out of the twenty-four hours, and even this was only a kind of dozing, and not a perfect sleep: notwithstanding which, he enjoyed good health, and reached his seventy-third year. I strongly suspect there must be some mistake in this case, for it is not conceivable that human nature could subsist upon such a limited portion of repose. Instances have been related of persons who *never slept;* but these must be regarded as purely fabulous.

Age modifies sleep materially. When a man is about his grand climacteric, or a few years beyond it, he slumbers less than at any former period of his life, but very young children always sleep away the most of their time. At this early period, the nerves being extremely sensitive and unaccustomed to impressions, become easily fatigued. As the children get older, the brain, besides becoming habituated to such impressions, acquires an accession of sensorial power, which tends to keep it longer awake. For the first two or three years, children sleep more than once in the twenty-four hours. The state of the fœtus has been denominated, by some writers, a continued sleep, but the propriety of this definition may be doubted, for the mind having never yet manifested itself, and the voluntary organs never having been exercised, can hardly be said to exist in slumber, a condition which supposes a previous

waking state of the functions. Middle-aged and active persons seldom sleep above eight or nine hours in the twenty-four, however much longer they may lie in bed, while a rich, lazy, and gormandizing citizen will sleep twelve or thirteen hours at a time.

It is worthy of remark, that as the sleep of childhood is not only longer, but more profound, so, during that period, the sensibility of the nerves, and their power of conducting the living principle, is greater than at any succeeding stage of life. The animal functions are performed with greater freedom: and while the strength of the mental faculties is slowly but gradually expanding, there is a buoyancy and hilarity of spirits, seldom attendant on the age of maturity.

When life has ripened into "the bright consummate flower of manhood," and the animal machine has attained the full maturity of its powers, the mind, for many succeeding years, proceeds onward to improvement, till the springs of bodily action becoming rusted, the sun of life declines from its meridian. The exercises which delighted us in youthful days, begin to be felt too severe, and we become slower in our motions. Nervous sensibility is blunted, and the powers of the living principle are not so easily restored after exhaustion. The eye-sight becomes dimmed, and the ear less acute to the pulsations of

sound. Manhood, by slow, yet sure degrees, becomes metamorphosed into "the lean and slippered pantaloon," and the decay of animal power ends in its extinction—that is, in death.

Sleep is greatly modified in old people. They usually slumber little, and not at all profoundly. Sometimes, however, when they get into a state of dotage, in consequence of extreme old age, the phenomena of childhood once more appears, and they pass the greater part of their time in sleep. The repose of the aged is most apt to take place immediately after taking food, while they solicit it in vain at that period at which, during the former years of their lives, they had been accustomed to enjoy it. The celebrated De Moivre slept twenty hours out of the twenty-four, and Thomas Parr latterly slept away by far the greater part of his existence.

Those who eat heartily, and have strong digestive powers, usually sleep much. This, as in the case already mentioned, I would impute to the great quantity of sensorial power required for the stomach. It is drafted from the whole system for the use of this organ; and the brain, in common with other parts, furnishing its quota, is thrown into that state of *inertia* or collapse which produces slumber. The great portion of sleep required by infants is also owing, in part, to the prodigious activity of their

digestive powers, which act in a similar manner upon the brain. The majority of animals sleep after eating, and man has a strong tendency to do the same thing, especially when oppressed with heat. In some countries this practice is very general, although it has not yet fortunately established itself in Great Britain. In the summer season, a strong inclination is often felt to sleep after dinner, when the weather is very warm.

A heavy meal, which produces no uneasy feeling while the person is awake, will often do so if he falls asleep. According to Dr. Darwin, this proceeds from the sensorial actions being increased, when the volition is suspended. The digestion from this circumstance goes on with increased rapidity: "heat is produced in the system faster than it is expended; and operating on the sensitive actions, carries them beyond the limitations of pleasure, producing, as is common in such cases, increased frequency of pulse." In this case, incomplete sleep is supposed, for when the slumber is perfect, no sensation whatever, either painful or the reverse, can be experienced.

Talking of the effect of food, it appears that the feeling of sleep is most strong while the food remains on the stomach, shortly after the accession of the digestive process, and before that operation which converts the nourishment into chyle has taken place.

I am of opinion that we rarely pass the whole of any one night in a state of perfect slumber. My reason for supposing this is, that we very seldom remain during the whole of that period in the position in which we fell asleep. This change of posture must have been occasioned by some emotion, however obscure, affecting the mind, and, through it, the organs of volition; whereas, in perfect slumber, according to my view of the case, we experience no emotion whatever.

Some animals, such as the hare, sleep with their eyes open; and I have known similar instances in the human subject. But the organ is dead to the ordinary stimulus of light, and sees no more than if completely shut.

There are two kinds of complete sleep—the light and the profound. So far as the extinction of the usual faculties goes, they are equally perfect, but the first is more easily broken than the other, and also much more healthy. Sleep also may be natural or diseased, the former proceeding from such causes as exhaust the sensorial power, such as fatigue, pain, or protracted anxiety of mind; the latter from cerebral congestion, such as apoplexy, drunkenness, or plethora. The great distinction between these varieties is, that the one can be broken by moderate stimuli, while the other requires either

excessive stimuli, or the removal of the cause which gave rise to it.

Generally speaking, the larger the brain of any animal is, in proportion to the size of his body, the greater is his necessity for a considerable portion of sleep. Birds and fishes, which have small brains, require less indulgence in this respect than most land animals. Carniverous animals, also, sleep more than those of the herbiverous race.

During sleep, the organs of vision acquire a great accession of sensibility—so much so, that they are extremely dazzled by a clear light. This, it is true, happens on opening our eyes upon a brilliant glare, even when we are awake, after having kept them closed for a considerable time, but the phenomenon is much stronger when we have been previously in deep slumber.

On being suddenly awaked from profound sleep, our ideas are exceedingly confused; and it is some time before we can be made to comprehend what is said to us. For some moments we neither hear nor see with our usual distinctness, and are, in fact, in a state of temporary reverie.

During complete sleep, no sensation whatever is experienced by the individual: he neither feels pain, hunger, thirst, or the ordinary desires of nature. He may be awakened to a sense of such feelings by their

vehemence, but during perfect repose he has no consciousness whatever that they existed. For the same reason, we may touch him without his feeling it; neither is he sensible to sounds, or to the influence of light, or odours. When, however, the slumber is not very profound, he may hear music or conversation, and have a sense of pain, and hunger, and thirst; and although not awaked by such circumstances, may recollect them afterwards. These impressions, caught by the senses, often give rise to the most extraordinary mental combinations, and form the ground-work of the most elaborate dreams.

A person who falls asleep near a church, the bell of which is ringing, may hear the sound during the whole of his slumber, and be nevertheless aroused by its sudden cessation. Here the sleep could not be profound; had it been so, his organs of hearing must have been insensible to the sound. In this case, the noise of the bell was no stimulus; it was its cessation which, by breaking the monotony, became so, and caused the slumberer to awake.

In low typhus, cynanche maligna, and other similar affections, the petechiæ generally appear during sleep, when the general circulation is least vigorous; while the paroxysms of reaction, or delirium, take place in the morning, when it is strongest.

In recovering from long protracted illnesses, ac-

companied with much want of rest, we generally sleep much—far more, indeed, than during the most perfect health. This seems to be a provision of nature for restoring the vigour which had been lost during disease, and bringing back the body to its former state. So completely does this appear to be the case, that as soon as a thorough restoration to health takes place, the portion of sleep diminishes till it is brought to the standard at which it originally stood before the accession of illness.

As sleep is prevented by the influence of light, it follows that the hours of darkness are those appropriated by nature for repose. It is evidently intended that men should slumber during night, and labour during day. This, as we have already said, is not a conventional rule established by the customs of society, but a law founded by nature herself. When the sun is up, there is a salubrity and clearness in the atmosphere, which point out that this is the time for labour and enjoyment, and not for sleep. This law is obeyed by every animal, except by those few varieties which prowl in the dark for their prey; and is universally followed by man, when he continues unsophisticated by the preposterous usages of fashionable society, which turn day into night, and wantonly pervert the most benificent gifts of heaven. During night, the atmosphere is damp and unwhole-

some, and evidently unfitted for the performance of any healthful occupation in the open air. In remaining within doors, therefore, man is only consulting the laws of nature, which point out the necessity of suspending his labours at this period, and betaking himself to rest, that he may be able to resume them with greater safety and advantage to himself, when the sun is above the horizon. Day is, then, the time for being awake, and night for sleep. But, by custom, this law may be perverted, and the desire for slumber, instead of coming on at the natural hour, may take place in the morning, or at whatever period it may have been established by the influence of habit.

After continuing a certain time asleep, we awake, stretch ourselves, open our eyes, rub them, and yawn several times. At the moment of awaking, there is some confusion of ideas, but this immediately wears away. Almost at once the faculties of the mind, from being in utter torpor, begin to act; the senses, one after the other, come into operation, and we start afresh into active existence. Instead of the listlessness, lassitude, and general fatigue experienced on lying down, we feel vigorous and refreshed; our thoughts are more strong and composed; we think more clearly, coolly, and rationally, and can often comprehend with ease what perplexed and baffled our understandings the previous night.

CHAPTER IV.

USE OF SLEEP.

Tired nature's kind restorer, balmy sleep.
YOUNG.

SLEEP is a provision of nature for restoring the strength expended during wakefulness. Both the mind and body have a constant tendency to exhaustion; they become fatigued by exercise, and can only recover their usual vigour by intervals of repose. There is also another use which Richerand, with his accustomed sagacity, has pointed out. "The exciting causes to which our organs are subjected during the day, tend progressively to increase their action. The throbbings of the heart, for instance, are more frequent at night than in the morning; and this action, gradually accelerated, would soon be carried to such a degree of activity as to be inconsistent with life, if its velocity were not moderated at intervals by the recurrence of

sleep." Sleep, therefore, lessens the rapidity of the circulation, and, on this account, the pulse is lower than during the waking state. It is also the period when nutrition is carried on most vigorously, consequently the growth of all animals proceeds during its continuance with increased activity: this fact was well known to Lord Bacon.

The cure of almost every disease is favoured by sleep. Owing to the activity of the absorbent system, many swellings are diminished at this period which increase during the waking state; for instance, œdema of the extremities, which often disappears during night, and recurs in the day-time, even when the patient keeps his bed—a proof that its disappearance does not always depend upon the posture of the body. All internal evacuations, such as diarrhœa, mennorhagia, &c. are also checked by sleep.

The strength given to the mind by slumber, is not less remarkable than that with which it inspires the body. It invigorates, refreshes, and fills it with new ideas. The intimate connection between the mental and corporeal powers, is at all times such, that they equally feel the consequences of abundant or deficient rest: the action which they exert upon each other is reciprocal, and whenever the one is affected, the other is sure to suffer in a corresponding degree. Thus, great uneasiness of body pro-

duces fatigue of mind, and extreme mental exhaustio
debilitates the frame. From sleep, therefore, th
mind derives fully as much benefit as the body. I
this were not the case, mere muscular quietude ough
to compensate to the latter for any want of sleep
but we know that it is very different, and that th
body, however little it exerts itself, is debilitate
even in a single day, if the mind is deprived of it
accustomed repose. The circumstance of a perso
being a long and sound sleeper, is considered b
Cardan as highly favourable to longevity.

Sleep, then, is a wise natural law, and its existenc
is indispensable to life. Without it, the frame woul
sink into fatal debility, and the mental function
become utterly imbecile and perverted. It is th
grand restorer of nature; the talisman which enable
the body to recover the sensorial power expended i
the waking state; the *elixir vitæ* which animates wit
energy the corporeal and intellectual faculties. It
uses, indeed, appear so manifest in a thousand cir
cumstances, that to detail them at length is altogethe
unnecessary. They are felt and recognised by man
kind as so indispensable to strength, to happiness
and to life itself, that he who dispenses with tha
portion of repose required by the wants of nature, is
in reality, curtailing the duration of his own existence

CHAPTER V.

SLEEP OF PLANTS.

It opened its fan-like leaves to the light,
And shut them beneath the kisses of night.
SHELLEY.

DURING night, plants seem to exist in a state analogous to sleep. At this time they get relaxed, while their leaves droop, and become folded together. This is particularly the case with the tamarind tree, and the leguminous plants with pinnated leaves; but with almost all plants it takes place in a greater or lesser degree, although, in some, the phenomena is much more striking than in others. The trefoil, the oxalis, and other herbs with ternate leaves, sleep with their leaflets folded together in the erect posture. Linnæus, from the observation of stove plants, has demonstrated satisfactorily that it is the withdrawing of light, and not of heat, which produces this change. The effect of

light upon the leaves of the acacia is peculiarly striking. At sunrise, they spread themselves out horizontally; as the heat increases, they become elevated, and at noon shoot vertically upwards; but as soon as the sun declines, they get languid and droop, and during night are quite pendent and relaxed. Most buds and flowers have a tendency to turn their heads towards the great luminary of day. As an instance of this, let us look to the sun-flower, which confronts the source of light with its broad, yellow expansion of aspect, and hangs its head droopingly, so soon as the object of its worship declines. There is, thus, a close analogy between the animal and vegetable kingdoms; and it becomes still stronger, when it is recollected that plants increase much more rapidly during night, which is their time of sleep, than in the day-time, which may be considered the period of their active or waking existence.

There are a few plants, however, which shut themselves up in the day, and remain closed at night. The *tragoponum luteum* does so at nine in the morning; and every hour of the day has some plant which then shuts itself up; hence the idea of the Flower-Dial, by means of which the hour of the day can be told with tolerable accuracy. Such plants sleep during day, and remain

awake in the night-time—thus affording a comparison with those individuals of the animal kingdom, such as the cat, owl, &c., which do the same thing.

CHAPTER VI.

DREAMING.

> While o'er my limbs sleep's soft dominion spread,
> ..... My soul phantastic measures trod
> O'er fairy fields; or mourned along the gloom
> Of pathless woods; or, down the craggy steep
> Hurled headlong, swam with pain the mantled pool,
> Or scaled the cliff; or danced on hollow winds,
> With antic shapes, wild natives of the brain.
>
> YOUNG.

A SUSPENSION (almost always complete) of the judgment, and an active state of memory, imagination, &c., are the only conditions essential to ordinary dreaming; but along with them there is usually a torpor of the organs of the senses, and of the powers of voluntary motion, the same as in complete sleep. Dreaming, therefore, is a state of partial slumber, in which certain parts of the brain are asleep, or deprived of their sensorial power, while others continue awake, or possess their accustomed proportion;

and whatever produces dreams has the effect of exhausting this power in one set of faculties, while it leaves it untouched in others. Dreaming, then, takes place when the repose is broken; and consists of a series of thoughts or feelings called into existence by certain powers of the mind, while the other mental powers which control these thoughts or feelings, are inactive. This theory is the only one capable of affording a satisfactory explanation of all the phenomena of dreams. It embraces every difficult point, and is so accordant with nature, that there is every reason to suppose it founded on truth. Many other doctrines have been started by philosophers, but I am not aware of any which can lay claim even to plausibility; some, indeed, are so chimerical, and so totally unsupported by evidence, that it is difficult to conceive how they ever entered into the imaginations of their founders. Baxter, for instance, in his "Treatise on the Immortality of the Soul," endeavours to show that dreams are produced by the agency of some spiritual beings, who either amuse, or employ themselves seriously in engaging mankind in all those imaginary transactions with which they are employed in dreaming. The theory of Democritus and Lucretius is equally whimsical. They accounted for dreams by supposing that spectres, and simulacra of corporeal

things constantly emitted from them, and floating up and down in the air, come and assault the soul in sleep.

When dreams take place, it is evident that the *whole* mind is no longer in a state of inaction. Some one or other of its functions is going on, and evolving its peculiar trains of thought. If a person's memory for example, be active, he will then recall, with more or less vividness, former scenes or impressions; if his imagination be strongly excited, images of splendour or gloom may appear before his mental eye. These impressions, at the same time, will often possess a character of exaggeration, which would never have belonged to them, had the judgment been awake to control the fancy in its extravagant flights. The latter, at this period, is more active than ever, for it is a rule of nature, that diminished activity of one organ, or organs, strengthens that of others; thus, the blind acquire increased acuteness of hearing, and the deaf of sight.

In dreaming, the voluntary powers are generally, but not necessarily suspended: we have a striking proof of this in somnambulism, which is a modification of dreaming. Dreams cannot take place in complete repose, for all the mental faculties are then dormant, and for a short period the person exists in a state of the most perfect oblivion. When,

however, one faculty, or more than one, bursts asunder the bonds which enthralled it, while its fellows continue chained in sleep, then visions ensue, and the imagination dwells in that wide empire which separates the waking state from that of perfect sleep. It is the unequal distribution of sensorial energy which gives rise to those visionary phenomena. One faculty exerts itself vividly, without being under the control of the others. The imagination is at work, while the judgment is asleep; and thereby indulges in the maddest and most extravagant thoughts, free from the salutary check of the latter more sedate and judicious faculty.

Man is not the only animal subject to dreaming. We have every reason to believe that many of the lower animals do the same. Horses neigh and rear in their sleep, and dogs bark and growl, and exhibit all their characteristic passions. Probably, at such times, the remembrance of the chace or the combat was passing through the minds of these creatures; and they often manifest signs of kindness or playfulness, and of almost every other passion.* Rumi-

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* "The stag-hounds, weary with the chace,
Lay stretched upon the rushy floor,
And urged in dreams the forest race
From Teviot-stone to Eskdale moor."
Lay of the Last Minstrel.

nating animals, such as the sheep and cow, dream less, but even they are sometimes so affected, especially at the period of rearing their young. If we descend still lower in the scale of life, we shall probably find the same phenomena to prevail; and, judging from analogy, we should suppose dreaming to be almost a universal law, nearly as universal as sleep itself. Some men, indeed, are said never to dream, and others only when their health is disordered. Dr. Beattie mentions a case of the latter description. For many years before his death, Dr. Reid had no consciousness of ever having dreamed; and Mr. Locke takes notice of a person who never did so till his twenty-sixth year, when he began to dream in consequence of having had a fever. But these cases are not satisfactory; and it is likely that the individuals must have had dreams from the same age as other people, and under the same circumstances, although probably they were of so vague a nature, as to have soon faded away from the memory.

Children dream almost from their birth; and if we may judge from what, on many occasions, they endure during sleep, we must suppose that the visions which haunt their young minds are often of a very frightful kind. Children, from many causes, are more apt to have dreams of terror than adults.

In the first place, they are peculiarly subject to various diseases, such as teething, convulsions, and bowel complaints, those fertile sources of mental terror in sleep; and, in the second place, their minds are exceedingly susceptible of dread in all its forms, and prone to be acted on by it, whatever shape it assumes. Many of the dreams experienced at this early period, leave an indelible impression upon the mind. They are remembered in after-life with feelings of pain; and blending with the more delightful reminiscences of childhood, inform us that this era, which we are apt to consider one unvaried scene of sunshine and happiness, had, as well as future life, its black shadows of melancholy, and was tinged almost equally with sorrow and care. The sleep of infancy, therefore, is far from being that ideal state of felicity which is commonly supposed. It is haunted with its own terrors, even more than that of adults; and, if those visions of joy which greet its mental eye, are of a more delightful nature, there can be little doubt that it is also tortured by scenes more painful and overwhelming than almost ever fall to the share of after-life.

Some writers imagine, that as we grow older, our dreams become less absurd and inconsistent, but this is extremely doubtful. Probably, as we advance in life, we are less troubled with these phenomena

than at the period of youth, when imagination is full of activity, and the mind peculiarly liable to impressions of every kind; but when they do take place, we shall find them equally preposterous, unphilosophical, and crude, with those which haunted our early years. Old people dream more, however, than the middle-aged, owing doubtless to the more broken and disturbed nature of their repose, but the aged very seldom speak in their sleep, a circumstance very common with the young.

Dreams generally arise without any assignable cause, but sometimes we can very readily discover their origin. Whatever has much interested us during the day, is apt to resolve itself into a dream; and this will generally be pleasurable or the reverse, according to the nature of the exciting cause. If, for instance, our reading or conversation be of horrible subjects, such as spectres, murders, or conflagrations, they will appear before us, magnified and heightened, in our dreams. Or, if we have been previously sailing upon a rough sea, we are apt to suppose ourselves undergoing the perils of shipwreck. Under such circumstances, should the heat of the body be increased by febrile irritation, or the temperature of the room, our misfortune probably occurs under the burning sun of Africa: or if, from opposite circumstances, we labour under a chill, we may then

be careering and foundering among the icebergs of the pole; while the whale, the morse, and the famished bear are prowling around us, and claiming us for their prey. Dr. Beattie informs us, that once, after riding thirty miles in a high wind, he passed the greater part of the succeeding night in visions terrible beyond description. Pleasurable sensations during the day are also apt to assume a still more pleasurable aspect in dreams. In like manner, if we have a longing for any thing, we are apt to suppose that we possess it. Even objects altogether unattainable, are placed within our reach: we achieve impossibilities, and triumph with ease over the invincible laws of nature.

The state of the stomach and liver has also a prodigious influence upon the character of dreams. Persons of bad digestion, especially hypochondriacs, are harassed with visions of the most frightful nature. This fact was well known to the celebrated Mrs. Radcliffe, who, for the purpose of filling her sleep with those phantoms of horror, which she has so forcibly embodied in the "Mysteries of Udolpho," and "Romance of the Forest," is said to have supped upon the most indigestible substances; while Dryden and Fuseli, with the opposite view of obtaining splendid dreams, are reported to have eaten raw flesh. Diseases of the chest, where the breathing is

impeded, also give rise to horrible visions, and constitute the frequent causes of that most frightful modification of dreaming—night-mare. A character of peculiar wildness and extravagance is given to our visions, by the usual intoxicating agents. By the use of such stimuli, the imagination is expanded, and filled with thoughts of the most eccentric description. Whatever emotions are called into birth, whether of a pleasing, a frightful, or a ludicrous description, are exaggerated beyond limits, and have a more soft, airy, and fugitive character, than those proceeding from almost any other cause. The person seems to himself to possess unusual lightness, and feels as if he could mount in the air, or float upon the clouds, while every object around him reels and staggers with emotion. In a word, the sensations of drunkenness are blended with the dream, and impress it with their own peculiar character.

Dreams often originate from the impressions made upon the body during sleep. Thus, if the clothes chance to fall off us, we are liable to suppose that we are parading the streets in a state of nakedness; and feel all the shame and inconvenience which such a state would in reality produce. We see crowds of people following after us, and mocking our nudity; and we wander from place to place, seeking a refuge under this ideal misfortune. Fancy,

in truth, heightens every circumstance, and inspires us with greater vexation than we would feel, if actually labouring under a like annoyance. The streets in which we wander, are depicted with the force of reality; we see their windings, their avenues, their dwelling-places, with intense truth: nothing is visionary or indistinct. Even the inhabitants who follow us, are exposed to view in all their various dresses, and endless diversities of countenance. Sometimes we behold our intimate friends gazing upon us with indifference, or torturing us with annoying impertinence. Sometimes we see multitudes whom we never beheld before; and each individual is exposed so vividly, that we could describe, or even paint his aspect.

In like manner, if we lie awry, or if our feet slip over the side of the bed, we often imagine ourselves standing upon the brink of a fearful precipice, and ready to tumble from its beetling summit into the abyss beneath. Fancy, in such a case, conjures up a thousand phantoms of inexpressible grandeur and dread. Rocks of enormous height seem to surround us on every side, and the one whereon we are placed is the loftiest of the whole: we stand in the midst of a melancholy and desolate wilderness, like a victim to propitiate some dreadful deity. If, during this scene of terror, the rain or hail patters

against our window, we have the idea of a hundred cataracts pouring from the rocks; if the wind howls without, we are suddenly wrapt up in a thunder-storm, with all its terrible associations; if we should chance to glide over the bed, the notion of falling from a precipice fills our minds, and away we go, into middle air, "a thousand fathoms down;" if our head happens to slip under the pillow, a huge rock is hanging over us, and ready to crush us beneath its ponderous bulk. The extent, in short, to which the mind is capable of being carried in such cases, is almost incredible. Stupendous events arise from the most insignificant causes—so completely does sleep magnify and distort every thing placed within its influence. The province of dreams is one of intense exaggeration—exaggeration beyond even the wildest conceptions of Oriental romance.

A smoky chamber, for instance, has given rise to the idea of a city in flames. The conflagrations of Rome and Moscow may then pass in terrific splendour before the dreamer's fancy. He may see Nero standing afar off, surrounded by his lictors and pretorian guards, gazing upon the imperial city wrapt in flames; or the sanguinary fight of Borodino, followed by the burning of the ancient capital of Russia, may be presented before him with all the intenseness of reality. Under these circumstances,

his whole being may undergo a change. He is no longer a denizen of his own country, but of that land to which his visions have transported him. All the events of his own existence fade away; and he becomes a native of Rome or Russia, gazing upon the appalling spectacle.

On the other hand, the mind may be filled with imagery equally exaggerated, but of a more pleasing character. The sound of a flute in the neighbourhood may invoke a thousand beautiful and delightful associations. The air is perhaps filled with the tones of harps, and all other varieties of music—nay, the performers themselves are visible; and while the cause of this strange scene is one trivial instrument, he may be regaled with a rich and melodious concert.

There is another fact connected with dreams no less remarkable. When we are suddenly awaked from a profound slumber by a loud knock at, or by the rapid opening of, the door, a train of actions which it would take hours, or days, or even weeks to accomplish, sometimes passes through the mind. Time, in fact, seems to be in a great measure annihilated. An extensive period is reduced, as it were, to a single point, or rather a single point is made to embrace an extensive period. In one instant, we pass through many adventures, see many strange sights, and hear many strange sounds. If we are awaked

by a loud knock, we have perhaps the idea of a tumult passing before us, and know all the characters engaged in it—their aspects, and even their very names. If the door open violently, the flood-gates of a canal may appear to be expanding, and we may see the individuals employed in the process, and hear their conversation, which may seem an hour in length; if a light be brought into the room, the notion of the house being in flames invades us, and we are witnesses to the whole conflagration from its commencement till it be finally extinguished. The thoughts which arise in such situations are endless, and assume an infinite variety of aspects. The whole, indeed, constitutes one of the strangest phenomena of the human mind, and calls to recollection the story of the Eastern monarch, who, on dipping his head into the magician's water-pail, fancied he had travelled for years in various nations, although he was only immersed for a single instant. This curious psychological fact, though occurring under somewhat different circumstances, has not escaped the notice of that singular and highly-gifted writer, "The English Opium-Eater."—"The sense of space," says he, "and in the end the *sense of time* were both powerfully affected. Buildings, landscapes, &c., were exhibited in proportions so vast as the bodily eye is not fitted to receive. Space swelled, and

was amplified to an extent of unutterable infinity. This, however, did not disturb me so much as the expansion of time. I sometimes seemed to have lived for seventy or a hundred years in one night; nay, sometimes had feelings representative of a millenium passed in that time, or, however, of a duration far beyond the limits of any human experience."

I must also mention another circumstance of a somewhat similar kind, which, though it occur in the waking condition, is produced by the peculiar effect of previous sleep upon the mind. Thus, when we awake in a melancholy mood, the result probably of some distressing dream, the remembrance of all our former actions, especially those of an evil character, often rushes upon us as from a dark and troubled sea. They do not appear individually, one by one, but come linked together in a close phalanx, as if to take the conscience by storm, and crush it beneath their imposing front. The whole span of our existence, from childhood downwards, sends them on; oblivion opens its gulphs and impels them forwards; and the mind is robed in a cloud of wretchedness, without one ray of hope to brighten up its gloom. In common circumstances, we possess no such power of grouping so instantaneously the most distant and proximate events of life: the spell of memory is invoked to call them successively from the past;

and they glide before us like shadows, more or less distinct according to their remoteness, or the force of their impress upon the mind. But in the case of which I speak, they start abruptly forth from the bosom of time, and overwhelm the spirit with a crowd of most sad and appalling reminiscences. In the crucible of our distorted imagination, every thing is exaggerated and invested with a blacker gloom than belongs to it; we see, at one glance, down the whole vista of time; and each event of our life is written there in gloomy and distressing characters. Hence the mental depression occurring under these circumstances, and even the remorse which falls, like bitter and unrefreshing dews, upon the heart.

Dreams being produced by the active state of such organs as have not sympathized in the general slumber, partake of the character of those whose powers are in greatest vigour, or farthest removed from the somnolent state. A person's natural character, therefore, or his pursuits in life, by strengthening one faculty, make it less susceptible, than such as are weaker, to be overcome by complete sleep; or, if it be overcome, it awakes more rapidly from its dormant state, and exhibits its proper characteristics in dreams. Thus, the miser dreams of wealth, the lover of his mistress, the

musician of melody, the philosopher of science, the merchant of trade, and the debtor of duns and bailiffs. In like manner, a choleric man is often passionate in his sleep; a vicious man's mind is filled with wicked actions; a virtuous man's with deeds of benevolence; a humorist's with ludicrous ideas. Pugnacious people often fight on such occasions, and do themselves serious injury by striking against the posts of the bed; while persons addicted to lying, frequently dream of exercising their favourite vocation.

For such reasons, persons who have a strong passion for music, often dream of singing and composing melodies; and the ideas of some of our finest pieces are said to have been communicated to the musician in his sleep. A mathematician, in like manner, is often engaged in the solution of problems, and has his brain full of Newton, Euler, Euclid, and Laplace; while a poet is occupied in writing verses, and in deliberating upon the strains of such bards as are most familiar to his spirit. To speak phrenologically—if the faculty of *Size* is large, then material images, more than sounds or abstractions, possess the soul, and every thing is magnified to unnatural dimensions; if *Colour* be fully developed, whatever is presented to the mental eye is brilliant and gaudy, and the person has probably the idea of rich paint-

ings, shining flowers, or varied landscapes; should *Locality* predominate, he is carried away to distant lands, and beholds more extraordinary sights than Cook, Parry, or Franklin ever described. An excess of *Cautiousness* will inspire him with terror; an excess of *Self-Esteem* cause him to be placed in dignified situations; while *Imitation* may render him a mimic or a player; *Language* a wrangler or philologist; *Secretiveness* a deceiver; *Acquisitiveness* a thief. In a word, whatever propensities, faculties, or passions are strongest in the mind, will, in most cases, manifest themselves more vigorously than the others in dreams; and where a faculty is very weak, it will scarcely manifest itself at all. Thus, one person who has large *Tune*, and small *Causality*, will indulge in music, but never in ascertaining the nature of cause and effect; while another, with a contrary disposition of organs, may attempt to reason upon abstract truths in dreams, while music will never once intrude into the temple of his thoughts. It is but fair to state, however, that the compositions, the reasonings, and the poems which we concoct at this time are generally of a very absurd description; and, how admirable soever they may have appeared, their futility is abundantly evident when we awake. To use the words of Dr. Parr, "in dreams we seem to reason, to argue, to compose, and in all these

circumstances, during sleep, we are highly gratified, and think that we excel. If, however, we remember our dreams, our reasonings we find to be weak, our arguments we find to be inconclusive, and our compositions trifling and absurd." The truth of these remarks is undeniable, but the very circumstance of a man's dreams turning habitually upon a particular subject — however ridiculously he may meditate thereupon — is a strong presumption that that subject is the one which most frequently engrosses his faculties in the waking state: in a word, that the power most energetic in the latter condition, is that also most active in dreams. Dr. Parr seems to entertain a different view of this point, and imagines that when the mind has been impressed with any peculiar images, that such have less seldom occurred in dreams than their opposites. This is directly opposed to my own experience, and, I believe, to that of the greater part of mankind; besides being contradicted by the evidences of analogy.

There is one peculiar property possessed by sleep, that of recalling to the memory circumstances which had long been forgotten, but which often start up before us in dreams with all the force of their first impression. Equally singular is the faculty which it has of renewing upon the imagination a variety of scenes which had begun to fade away from its tablet,

and depicting them anew with redoubled distinctness and truth. It is impossible even to conjecture the cause of this singular power: the fact alone is ascertained, while every thing else is hidden in the most complete obscurity.

Dreams are sometimes useful in affording prognostics of the probable termination of several diseases. Violent and impetuous dreams occurring in fevers generally indicate approaching delirium; those of a gloomy terrific nature give strong grounds to apprehend danger; while dreams of a pleasant cast may be looked upon as harbingers of approaching recovery. The visions, indeed, which occur in a state of fever are highly distressing: the mind is vehemently hurried on from one train of ideas to another, and participates in the painful activity of the system. Those generated by hypochondria or indigestion, are equally afflicting, but more confined to one unpleasant idea—the intellect being overpowered, as it were, under the pressure of a ponderous load, from which it experiences an utter incapacity to relieve itself. The febrile dream has a fiery, volatile, fugitive character: the other partakes of the nature of night-mare, in which the faculties seem frozen to torpor, by the presence of a loathsome and indolent fiend.

If, from any cause, we chance to be relieved from

the physical suffering occasioning such dreams, the dreams themselves also wear away, or are succeeded by others of a more pleasing description. Thus, if perspiration succeed to feverish heat, the person who, during the continuance of the latter, fancied himself on the brink of a volcano, or broiled beneath an African sun, is transported to some refreshing stream, and enjoys precisely the pleasure which such a transition would produce, did it actually take place.

Other diseases and feelings besides fever, give a character to dreams. The dropsical subject has the idea of fountains, and rivers, and seas, in his sleep; jaundice tinges the objects beheld, with its own yellow and sickly hue; hunger induces dreams of eating agreeable food; an attack of inflammation disposes us to see all things of the colour of blood; excessive thirst presents us with visions of parched oceans, burning sand-plains, and immitigable heat; a bad taste in the mouth, with every thing bitter and nauseous in the vegetable world; a mercurial course perhaps with the mines of Spain, from whence that mineral is obtained. "I have been told by a friend," observes Mr. Dugald Stewart, "that having occasion, in consequence of an indisposition, to apply a bottle of hot water to his feet when he went to bed, he dreamed that he was making a journey to

the top of Mount Etna, and that he found the heat of the ground almost insufferable. Another person having a blister applied to his head, dreamed that he was scalped by a party of Indians." These results are not uniform, but such is the path to which particular states of the body are apt to lead the imagination; and dreams occurring in these states, will more frequently possess a character of this nature than of any other—modified of course by the strength of the individual cause, and fertility of the fancy. Sometimes the case is reversed, and dreams, instead of being the effects, become the causes of bodily emotions. Lucretius has noticed one illustration of this, in the case of children whose bladders are frequently emptied, in consequence of their sleeping ideas being directed to this want of nature. The same effect is said to have been produced, by putting the hand of a sleeping child in cold water.

In health, when the mind is easy, we seldom dream; and when we do so, our visions are generally of a pleasing character. In disease, especially of the brain, liver, and stomach, dreams are both common, and of a very distressing kind.

Dr. Beattie speaks of a man on whom any kind of dream could be induced, by his friends gently speaking in his presence upon the particular subject

which they wished him to dream about. I have several times tried this experiment upon persons asleep, and with a like result. I apprehend, however, that when this takes place, the slumber must have been very imperfect.

Sometimes we awake from dreams in a pleasing, at other times in a melancholy mood, without being able to recollect them. They leave a pleasurable or disagreeable impression upon the mind, according, doubtless, to their nature, and yet we cannot possibly remember what we were dreaming about. Sometimes, though baffled at the time, we can recall them afterwards, but this rarely occurs.

It often happens that the dreamer, under the influence of a frightful vision, leaps from his bed, or calls out aloud in a paroxysm of terror. This is very frequently the case with children. On awaking from a dream of this nature, we are often cold and tremulous, while our teeth chatter, and the whole body is deluged in frigid perspiration. Persons in such circumstances, have actually leaped out at the window, under the impression of being pursued by some imminent danger.

In the 9th volume of the "Philosophical Transactions of the Royal Society of London," a curious case is given by Archdeacon Squire, of a person who, after having been dumb for years, recovered

the use of his speech by means of a frightful dream. "One day in the year 1741, he got very much in liquor, so much so, that on his return home at night to the Devizes, he fell from his horse three or four times, and was at last taken up by a neighbour, and put to bed in a house on the road. He soon fell asleep; when, dreaming that he was falling into a furnace of boiling wort, it put him into so great an agony of fright, that struggling with all his might to call out for help, he actually did call out aloud, and recovered the use of his tongue that moment, as effectually as he ever had it in his life, without the least hoarseness or alteration in the old sound of his voice."

The passion of horror is more frequently felt in dreams than at any other period. Horror is intense dread, produced by some unknown or superlatively disgusting object. The visions of sleep, therefore, being frequently undefined, and of the most revolting description, are apt to produce this emotion as well as simple fear. Under its influence, we may suppose that fiends are lowering upon us; that dismal voices, as from the bottomless pit, or from the sepulchre, are floating around us; that we are haunted by apparitions; or that serpents, scorpions, and demons are our bed-fellows. Such sensations are strongly akin to those of night-mare; but

between this complaint and a mere dream of terror, there is a considerable difference. In incubus, the individual feels as if his powers of volition were totally paralyzed; as if he laboured under extreme terror and suffocation; and as if he felt altogether unable to move a limb in his own behalf, or utter a cry expressive of his agony. When these feelings exist, we may consider the case to be one of night-mare: when they do not, and when, notwithstanding his terror, he seems to himself to possess unrestrained muscular motion, to run with ease, breathe freely, and enjoy the full capability of exertion, it must be regarded as a simple dream. "When," exclaims Job, "I say my bed shall comfort me, my couch shall ease my complaint; then thou scarest me with dreams, and terrifiest me through visions."

Persons are to be found, who, when they speak much during sleep, are unable to remember their dreams on awaking, yet recollect them perfectly if they do not speak. I mention this as a fact, but profess myself totally unable to give any explanation of it.

When we dream of visible objects, the sensibility of the eyes is diminished in a most remarkable manner; and on opening them, they are much less dazzled by the light, than if we awoke from a slum-

ber altogether unvisited by such dreams. A fact equally curious is noticed by Dr. Darwin, in his "Zoonomia:"—"If we sleep in the day-time, and endeavour to see some object in our dreams, the light is exceedingly painful to our eyes, and after repeated struggles, we lament in our sleep that we cannot see it. In this case, I apprehend, the eye-lid is in some measure opened by the vehemence of our sensations; and the iris being dilated, shows as great, or greater, sensibility than in our waking hours."

There are some persons to whom the objects of their dreams are always represented in a soft, mellow lustre, similar to twilight. They never seem to behold any thing in the broad glare of sunshine; and, in general, the atmosphere of our visions is less brilliant than that through which we are accustomed to see things while awake.

One of the most remarkable phenomena attendant upon dreaming, is the almost universal absence of surprise. Scarcely any event, however incredible, impossible, or absurd, gives rise to this emotion. We see circumstances at utter variance with the laws of nature, and yet their discordancy, impracticability, and oddness never strike us as at all out of the usual course of things. This is one of the strongest proofs that can be alleged in support of the

dormant condition of the reflecting faculties. Had these powers been awake, and in full activity, they would have pointed out the erroneous nature of the impressions conjured into existence by fancy, and shown us truly, that the visions passing before our eyes were merely the chimeras of an excited imagination—the airy phantoms of imperfect sleep.

The absence of surprise, however, though almost invariable, does not occur upon every occasion. I have occasionally experienced the feeling of surprise, and been not a little puzzled in my dreams at some of the phenomena which presented themselves. But this emotion is exceedingly rare, and can occur only when the sleep is very imperfect, and when, consequently, there is some influence exerted upon the thoughts by the knowing faculties.

I have elsewhere spoken of the confusion of ideas, amounting to a species of mild delirium, which immediately precedes sleep. This especially occurs when we are hovering, as it were, between the waking and the slumbering state. Our ideas have no resting-place, but float about in the confused tabernacle of the mind, and give rise to images of the most perplexed and undefined description. In this state, they continue for some time, and either resolve themselves into dreams, or melt into thorough repose.

Dreams are sometimes exceedingly obscure, and float like faint clouds over the spirit. We can then resolve them into nothing like shape or consistence, but have an idea of our minds being filled with dim and impalpable imagery, which is so feebly impressed upon the tablet of memory, that we are unable to embody it in language, and communicate its likeness to others.

At other times, the objects of sleep are stamped with almost supernatural energy. Indeed, they are usually represented with far greater strength and distinctness than events which have had an actual existence. The dead, or the absent, whose appearances to our waking faculties had become faint and obscure, are depicted with intense reality and truth. We see them stand before us; and even their voices, which had become like the echo of a forgotten song, are recalled from the depths of oblivion, and speak to us, as in former times. Dreams, therefore, have the power of brightening up the dim regions of the past, and presenting them with a force which the mere efforts of unassisted remembrance could never have accomplished in our waking hours.

In speaking of the dead, we have a striking instance of the absence of surprise. We almost never wonder at beholding individuals whom we yet know, in our dreams, to have even been buried for

years. We see them among us, and hear them talk, and associate with them on the footing of fond companionship. Still the circumstance does not strike us with wonder, nor do we attempt to account for it. Frequently, however, we are not aware that the dead who appear before us, are dead in reality. They still seem alive as when they walked on earth, only all their qualities, whether good or bad, are exaggerated by sleep. If we hated them while in life, our animosity is now exaggerated to a double degree. If we loved them, our affection becomes more passionate and intense than ever. Under these circumstances, many scenes of most exquisite pleasure often take place. The slumberer supposes himself enjoying the communionship of those who were dearer to him than life, and has far more intense delight than he could have experienced, had these individuals been in reality alive, and at his side.

" I hear thy voice in dreams
  Upon me softly call,
Like echo of the mountain streams
  In sportive waterfall:
I see thy form, as when
  Thou wert a living thing,
And blossomed in the eyes of men
  Like any flower of spring."

Nor is the passion of love, when experienced in

dreams, less vivid than any other emotion, or the sensations to which it gives rise less pleasurable. I do not here allude to the passion in its physical sense, but to that more moral and intellectual feeling, the result of deep sensibility and attachment. Men who never loved before, have conceived a deep affection to some particular woman in their dreams, which, continuing to operate upon them after they awoke, has actually terminated in a sincere and lasting fondness for the object of their visionary love. Men, again, who actually are in love, dream more frequently of this subject than of any thing else—fancying themselves in the society of their mistresses, and enjoying a happiness more exquisite than is compatible with the waking state—a happiness, in short, little removed from celestial. Such feelings are not confined to men: they pervade the female breast with equal intensity; and the young maiden stretched upon the couch of sleep, may have her spirit filled with the image of her lover, while her whole being swims in the ecstacies of impassioned, yet virtuous attachment. At other times, this pure passion in both sexes may be blended with one of a grosser character; which also may acquire an increase of pleasurable sensation: to such an extent is every circumstance, whether of delight or suffering, exaggerated by sleep.

For the same reason that the lover dreams of love, does the newly-married woman dream of children. They, especially if she has a natural fondness for them—if she herself is pregnant, or possesses an ardent longing for offspring—are often the subject of her sleeping thoughts; and she conceives herself to be encircled by them, and experiencing intense pleasure in their innocent society. Men who are very fond of children often experience the same sensations; and both men and women who are naturally indifferent in this respect, seldom dream about them, and never with any feelings of peculiar delight.

During the actual process of any particular dream, we are never conscious that we are really dreaming; but it sometimes happens that a second dream takes place, during which we have a consciousness or a suspicion that the events which took place in the first dream were merely visionary, and not real. People, for instance, sometimes fancy in sleep, that they have acquired wealth: this may be called the first dream; and during its progress they never for a moment doubt the reality of their impressions; but a second one supervenes upon this, and they then begin to wonder whether their riches be real or imaginary—in other words, they try to ascertain whether they had been previously dreaming or not.

But even in the second dream we are unconscious of dreaming. We still seem to ourselves to be broad awake—a proof that in dreams we are never aware of being asleep. This unconsciousness of being asleep during the dreaming state, is referrible to the inert condition of the reasoning powers. The mind is wholly subject to the sceptre of imagination; and whatever sounds or sights this faculty invokes, seem to be real, for want of a controlling power to point out their true character.

> "You stood before me like a thought,
> A dream remembered in a dream."

Dreams are more apt to take place in a strange bed than in one to which we are accustomed. They also occur more frequently in the morning than in the early part of the night; a proof that the sleep is much more profound in the latter period than in the former; and those visions during the former are of a more pleasing character than those which take place afterwards. Shortly after falling asleep, we often awake with a sudden start, having the mind filled with painful impressions, although we often find it quite impossible to say what the dream which caused these impressions was about. Some persons do this regularly every night, and there can be no doubt that it proceeds from the

mind being tortured by some distressing vision; which, however, has faded away without leaving any trace behind it, save a feeling of melancholy and distress. Those who are afflicted in this manner, have two slumbers; and such dreams as occur in their morning sleep, are almost always of a more pleasing character than those which take place in their earlier repose. There are some who are sure to be aroused by a sudden start, if they happen to fall asleep in the position in which they at first lay down, and who nevertheless escape this unpleasant feeling, if they turn themselves once or twice before falling into slumber.

Hazlitt, in his "Round Table," has made an assertion, which, if true, would go far to prove that the mind is perpetually active in sleep. He states, that if a person is suddenly awaked at any given time, and asked what he has been dreaming about, he will be at once recalled to a train of associations with which his mind had been busied previously. This experiment has been tried upon myself, and I have tried it upon others; and I am satisfied, from the result, as well as from reasoning, that the statement is not correct. In some few instances, the persons could recollect ideas passing through their minds, but, in a great majority of cases, they had no recollection whatever of any

such circumstances. In the former case, it may be inferred that the mind was engaged in dreams—in the latter, we must conclude that it was a perfect blank, and that the whole of its functions were utterly suspended.

Those troubled with deafness do not hear distinctly such sounds as they conceive to be uttered during sleep. In like manner, a blind man seldom dreams of visible objects, and never if he has been blind from his birth. In both cases, the phenomena of their dreams bear a close relation to their physical deficiencies.

The illusion of dreams is much more complete than that of the most exquisite plays. We pass, in a second of time, from one country to another; and persons who lived in the most different ages of the world are brought together in strange and incongruous confusion. It is not uncommon to see, at the same moment, Alexander the Great, Julius Cæsar, and Marlborough in close conversation. Nothing, in short, however monstrous, incredible, or impossible, seems absurd. Equally striking examples of illusion occur when the person awakes from a dream, and imagines that he hears voices or beholds persons in the room beside him. In the first cases, we are convinced, on awaking, of the deceptive nature of our visions, from the utter impossibility of their

occurrence: they are at variance with natural laws; and a single effort of reason is sufficient to point out their absolute futility. But when the circumstances which seem to take place are not in themselves conceived impossible, however unlikely they may be, it is often a matter of the utmost difficulty for us to be convinced of their real character. On awaking, we are seldom aware that when they took place, we laboured under a dream. Such is their deceptive nature, and such the vividness with which they appear to strike our senses, that we imagine them real; and accordingly often start up in a paroxysm of terror, having the idea that our chamber is invaded by thieves, that strange voices are calling upon us, or that we are haunted by the dead. When there is no way of confuting these impressions, they often remain irradicably fixed in the mind, and are regarded as actual events, instead of the mere chimeras of sleep. This is particularly the case with the weak-minded and superstitious, whose feelings are always stronger than their judgments: hence the thousand stories of ghosts and warnings, with which the imaginations of these persons are haunted—hence the frequent occurrence of nocturnal screaming and terror in children, whose faculties are naturally too weak to correct the sensorial impressions of dreams,

and point out their true nature—hence the painful illusions occurring even to persons of strong intellect, when they are debilitated by watchfulness, long-continued mental suffering, or protracted disease. These impressions often arise without any apparent cause: at other times, the most trivial circumstances will produce them. A voice, for instance, in a neighbouring street, may seem to proceed from our own apartment, and may assume a character of the most appalling description; while the tread of foot-steps, or the knocking of a hammer over our heads, may resolve itself into a frightful figure stalking before us.

Case.—"I know a gentleman, who is living, at this moment, a needless slave to terror, which arises from a circumstance which admits easily of explanation. He was lying in his bed with his wife, and, as he supposed, quite awake, when he felt distinctly the impression of some person's hand upon his right shoulder, which created such a degree of alarm that he dared not to move himself in bed, and indeed could not, if he had possessed the courage. It was some time before he had it in his power to awake his wife, and communicate to her the subject of his terror. The shoulder which had felt the impression of the hand, continued to feel benumbed and uncomfortable for some time. It had been uncovered, and,

most probably, the *cold* to which it was exposed was the cause of the phenomenon." *

An attack of dreaming illusion, not, however, accompanied with any unpleasant feeling, occurred to myself lately. I had fallen accidentally asleep upon an arm-chair, and was suddenly awaked by hearing, as I supposed, two of my brothers talking and laughing at the door of the room, which stood wide open. The impressions were so forcible, that I could not believe them fallacious, yet I ascertained that they were so entirely, for my brothers had gone to the country an hour before, and did not return for a couple of hours afterwards.

There are few dreams involving many circumstances, which are, from beginning to end, perfectly philosophical and harmonious: there is usually some absurd violation of the laws of consistency, a want of congruity, a deficiency in the due relations of cause and effect, and a string of conclusions altogether unwarranted by the premises. Mr. Hood, in his "Whims and Oddities," gives a curious illustration of the above facts. "It occurred," says he, "when I was on the eve of marriage, a season when, if lovers sleep sparingly, they dream profusely. A

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* Waller's "Treatise on the Incubus or Night-Mare."

very brief slumber sufficed to carry me, in the night coach, to Bogner. It had been concerted between Honoria and myself that we should pass the honey-moon at some such place upon the coast. The purpose of my solitary journey was to procure an appropriate dwelling, and which, we had agreed upon, should be a little pleasant house, with an indispensable look-out upon the sea. I chose one accordingly, a pretty villa, with bow windows, and a prospect delightfully marine. The ocean murmur sounded incessantly from the beach. A decent elderly body, in decayed sables, undertook on her part to promote the comfort of the occupants by every suitable attention, and, as she assured me, at a very reasonable rate. So far the nocturnal faculty had served me truly: a day dream could not have proceeded more orderly: but, alas! just here, when the dwelling was selected, the sea-view was secured, the rent agreed upon, when every thing was plausible, consistent, and rational, the incoherent fancy crept in, and confounded all—by marrying me to the old woman of the house."

There are no limits to the extravagancies of those visions sometimes called into birth by the vivid exercise of the imagination. Contrasted with them, the wildest fictions of Rabelais, Ariosto, or Dante, sink into absolute probabilities. I remember of

dreaming on one occasion that I possessed ubiquity, twenty resemblances of myself appearing in as many different places, in the same room; and each being so thoroughly possessed by my own mind, that I could not ascertain which of them was myself, and which my double, &c. On this occasion, fancy so far travelled into the regions of absurdity, that I conceived myself riding upon my own back—one of the resemblances being mounted upon another, and both animated with the soul appertaining to myself, in such a manner that I knew not whether I was the *carrier* or the *carried.* At another time, I dreamed that I was converted into a mighty pillar of stone, which reared its head in the midst of a desert, where it stood for ages, till generation after generation melted away before it. Even in this state, though unconscious of possessing any organs of sense, or being else than a mass of lifeless stone, I saw every object around—the mountains growing bald with age—the forest trees drooping in decay; and I heard whatever sounds nature is in the custom of producing, such as the thunder-peal breaking over my naked head, the winds howling past me, or the ceaseless murmur of streams. At last I also waxed old, and began to crumble into dust, while the moss and ivy accumulated upon me, and stamped me with the aspect of hoar antiquity.

Of all dreams, however, there are none which, for unlimited extravagance, equal those produced by narcotics. An eminent artist, under the influence of opium, fancied the ghastly figures in Holbein's "Dance of Death" to become vivified—each grim skeleton being endowed with life and motion, and dancing and grinning with aspects of hideous reality. I have myself experienced visions equally terrible and unnatural: but all dreamers, whether ancient or modern, must hide their diminished heads before the "Opium-Eater," whose dreams, whether of beauty or horror, far transcend any thing of the kind which have ever been communicated to the world.

"Southern Asia is, and has been for thousands of years, the part of the earth most swarming with human life; the great *officina gentium*. Man is a weed in those regions. The vast empires also into which the enormous population of Asia has always been cast, give a farther sublimity to the feelings associated with all Oriental names or images. In China, over and above what it has in common with the rest of Southern Asia, I am terrified by the modes of life, by the manners, and the barrier of utter abhorrence and want of sympathy, placed between us by feelings deeper than I can analyse. I could sooner live with lunatics or brute animals. All this, and much more than I can say, or have time to say, the reader must

enter into before he can comprehend the unimaginable horror which these dreams of Oriental imagery and mythological tortures impressed upon me. Under the connecting feeling of tropical heat and vertical sunlights, I brought together all creatures, birds, beasts, reptiles, all trees and plants, usages and appearances, that are found in all tropical regions, and assembled them together in China or Indostan. From kindred feelings, I soon brought Egypt and all her gods under the same law. I was stared at, hooted at, grinned at, chattered at, by monkeys, by paroquets, by cockatoos. I ran into pagodas: and was fixed for centuries at the summit, or in the secret rooms; I was the idol; I was the priest; I was worshipped; I was sacrificed. I fled from the wrath of Brama through all the forests of Asia: Vishnu hated me: Seeva laid in wait for me. I came suddenly upon Isis and Osiris: I had done a deed, they said, which the ibis and the crocodile trembled at. I was buried for a thousand years, in stone coffins, with mummies and sphinxes, in narrow chambers, at the heart of eternal pyramids. I was kissed, with cancerous kisses, by crocodiles, and laid confounded with all unutterable, slimy things, amongst reeds and Nilotic mud."

Again: "Hitherto the human face had mixed often in my dreams, but not so despotically, nor with any special power of tormenting. But now

that which I have called the tyranny of the human face began to unfold itself. Perhaps some part of my London life might be answerable for this. Be that as it may, now it was that, upon the rocking waters of the ocean, the human face began to appear; the sea appeared paved with innumerable faces, upturned to the heavens: faces imploring, wrathful, despairing, surged upwards by thousands, by myriads, by generations, by centuries:—my agitation was infinite,—my mind tossed—and surged with the ocean."

I have elsewhere spoken of the influence exerted upon dreams by the usual intoxicating agents, but opium of all others produces the most powerful effect, and gives rise to the most extraordinary flights of the imagination. Its power in this respect has been seen in the foregoing extracts; and various narcotic substances, such as belladonna, hyosciamus, and aconite have a kindred influence, only, perhaps, in a less intense degree. When opium is taken in moderate quantities, and agrees with the constitution, visions of exquisite beauty take place. A calm delight is diffused over the dreams; beautiful sights pass before the eye; the ear is filled with delightful sounds; and the whole spirit wrapped up in the ecstacies of Elysium. Nor are these sensations confined to the slumbering state, for they pervade

the mind even when awake, and fill it with intense pleasure. But when the medicine is taken in an overdose, or disagrees with the constitution, the sensations are of a totally different description; the sleep being disturbed by harassing dreams, the person becoming hot, thirsty, and restless, and tortured by all the pangs of night-mare. In both cases, the fancy is invested with extraordinary power, but in the one its energy discloses itself in the production of pleasing, and in the other of the most revolting imagery.

It often happens that such objects or persons as we have seen before, and are familiar with, become utterly changed in dreams, and bear not the slightest resemblance to their *real* aspect. It might be thought that such a circumstance would so completely annihilate their identity as to prevent us from believing them to be what, by us, they are conceived; but such is not the case. We never doubt that the particular object or person presented to our eyes appears in its true character. In illustration of this fact, I may mention, that I lately visited the magnificent palace of Versailles in a dream, but that deserted abode of kings stood not before me as when I have gazed upon it broad awake; it was not only magnified beyond even its stupendous dimensions, and its countless splendours immeasurably increased, but

the very aspect itself of the mighty pile was changed; and instead of stretching its huge Corinthian front along the entire breadth of an elaborate and richly fantastic garden, adorned to profusion with alcoves, fountains, waterfalls, statues, and terraces, it stood alone in a boundless wilderness—an immense architectural creation of the Gothic ages, with a hundred spires and ten thousand minarets sprouting up and dipping their pointed pinnacles in the sky. The whole was as different as possible from the reality, but this never once occurred to my mind; and, while gazing upon the visionary fabric, I never doubted for an instant that it then appeared as it had ever done, and was in no degree different from what I had often previously beheld.

In such cases, the illusion is sometimes not merely confined to sleep, but extends itself to the waking state. To illustrate this, I may state the following circumstance. Some years ago, my impressions concerning the aspect and localities of Inverness, were strangely confused by a dream which I had of that town, taking so strong a hold upon my fancy as to be mistaken for a reality. I had been there before, and was perfectly familiar with the appearance of the town, but this was presented in so different a light, and with so much force by the dream, that I at last became unable to say which of the two aspects was

the real one. Indeed, the visionary panorama exhibited to my mind, took the strongest hold upon it; and I rather felt inclined to believe that this was the veritable appearance of the town, and that the one which I had actually beheld, was merely the illusion of the dream. This uncertainty continued for several years, till, being again in that quarter, I satisfied myself of the real state of the case. On this occasion, I must have forgotten that I had dreamed upon the subject; and the dream must have occurred to my mind some time after it happened, and taken such a firm hold upon it as to dethrone the reality, and take its place. I remember distinctly of fancying that the little woody hill of Tormachurich was in the centre of the town, although it stands at some distance from it; that the principal steeple was on the opposite side of the street to that on which it stands; and that the great mountain of Ben-Wevis, many miles off, was in the immediate neighbourhood.

It is the same with persons as with objects. We often see in our dreams particular individuals with whom we are intimately acquainted, and yet their very aspect, voice, and disposition are totally different from those of the supposed person: in fact, nothing is retained of the latter but the name. In the midst of all this incongruity, the utter contrast between the vision and the reality never for a moment

strikes us; and we regard as our familiar friend one who bears no earthly resemblance to him. Instances of similar mental illusion occur in mania and drunkenness; and in these conditions, as well as in dreams, afford the most decisive proof of the inactive or distempered state of the judgment.

The power of imagination is perhaps never so vividly displayed, as in those dreams which haunt the guilty mind. When any crime of an infamous character has been perpetrated, and when the person is not so utterly hardened as to be insensible of his iniquity, the wide storehouse of retributive vengeance is opened up, and its appalling horrors poured upon him. In vain does he endeavour to expel the dreadful remembrance of his deeds, and bury them in forgetfulness: from the abyss of slumber they start forth as the vampyres start from their sepulchres, and hover around him like the furies that pursued the footsteps of Œdipus;—while the voice of conscience stuns his ears with murmurs of judgment and eternity. Such is the punishment reserved for the guilty in sleep. During the busy stir of active existence, they may contrive to evade the memory of their wickedness—to silence the whispers of the "still small voice" within them, and cheat themselves with a semblance of happiness; but when their heads are laid upon the pillow, the flimsy veil

which hung between them and crime, melts away like an illusive vapour, and displays the latter in naked and horrid deformity. Then, in the silence of night, the "still small voice" is heard like an echo from the tomb; then, a crowd of doleful remembrances rush in upon the criminal, no longer to be debarred from visiting the depths of his spirit; and when dreams succeed to such broken and miserable repose, it is only to aggravate his previous horrors, and present them in a character of still more overwhelming dread. *

"Though thy slumber may be deep,
Yet thy spirit shall not sleep,
There are shades which will not vanish.
There are thoughts thou canst not banish;
By a power to thee unknown,
Thou canst never be alone;
Thou art wrapt as with a shroud;
Thou art gathered in a cloud;
And for ever shalt thou dwell
In the spirit of this spell."

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* The following statement regarding Helen M'Dougal, the infamous associate of Burke, in the West Port murders, affords an illustration of this circumstance. It is taken from the *Dumfries Courier*.

"We have just seen a private letter from Carlisle, in which it is stated that Burke's degraded concubine, M'Dougal, appeared in that city on Friday or Saturday last. She has become a common beggar, and in that capacity was admitted into a lodging-house at

Such are the principal phenomena of dreams; and from them it will naturally be deduced, that dreaming may occur under a thousand various circumstances; that it may result from the actual state of the body, or from the condition of the mind previous to falling asleep; or exist as a train of emotions which can be referred to no extrinsic cause. The forms it assumes are also as various as the causes giving rise to it, and much more striking in their nature. Dreams are the media under which imagination unfolds the ample stores of its richly decorated empire; and in proportion to the vigour of that faculty in any individual, is the luxuriance of the visions which pass before his eyes in sleep. But even the most dull and passionless, while under

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Damside. Her name and history were at first unknown, but during the night she uttered the most dreadful screams, calling out at one time that they were hanging Burke, and at another, imploring the mob to save him. In fact, her guilty and troubled conscience revealed what her lips had refused to utter; and when the people of the house became aware of her real character, and even extorted something like a confession, by appealing to the horrid nature of her dreams, they at once turned from her as a tainted thing that would pollute even a community of beggars. Again, therefore, she had to steal away like a ghost, though not until the populace had collected, and subjected her to a pretty rough treatment. Often she besought pity as one willing to fly, if she only knew where."

their influence, frequently enjoy a temporary inspiration: their torpid faculties are aroused from the benumbing spell which hung over them in the waking state, and lighted up with the Promethean fire of genius and romance; the prose of their frigid spirits is converted into magnificent poetry; the atmosphere around them peopled with new and unheard-of imagery; and they walk in a region to which the proudest flights of their limited energies could never otherwise have attained.

CHAPTER VII.

MANAGEMENT OF DREAMING.

Sleep, thou art many-coloured as the bow
That spans the tempest,—bright as dewy prime,
Or, as December midnight, drear and deep.
Why will ye haunt me, dim and horrid shapes,
That make a curse of slumber? True, the years
Of latter life have been unlovely quite;
But canst thou not in dreams the past restore,
Indulgent fancy! calling from the grave
Departed friends, the dearly loved and lost,
Till freshens the parched heart, and every pulse
Throbs to the tune of boyhood.

DELTA.

IT is hardly necessary to say any thing upon this subject, for a knowledge of the origin of dreams naturally points out the method best adapted for obviating them. When they are of a pleasing character, no one cares any thing about their removal: it is only when they get distressing, and threaten to injure the health of the individual by frequent recurrence, that this becomes an important

object. When dreams assume the character of night-mare, they must be managed according to the methods laid down for the cure of that distressing affection. In all cases, the condition of the digestive organs must be attended to, as any disordered state of these parts is apt to induce visions of a very painful character. For this purpose, mild laxatives may become useful; and if the person is subject to heartburn, from acid in the stomach, he should use a little magnesia, chalk, or carbonate of soda, occasionally. Attention, also, must be paid to the diet; and as suppers have a tendency to generate dreams of all kinds, these meals should be carefully avoided. At the same time, great care should be taken not to brood over any subject, upon lying down, but to dispel, as soon as possible, all intrusive ideas, especially if they are of a painful nature. If there is any unpleasant circumstance, such as hardness, irregularity, &c., connected with the bed, which tends to affect sleep, this must be removed. Late reading, the use of tea or coffee shortly before going to rest, or any thing which may stimulate the mind or body, ought likewise to be shunned.

In speaking of dreams representative of danger, I may mention that there are instances of persons, who, having determined to remember that the perils seen in them are fallacious, have actually succeeded

in doing so, while asleep; and have thus escaped the terror which those imaginary dangers would otherwise have produced. Haller relates a case of this kind; and Mr. Dugald Stewart mentions that the plan was successfully adopted by Dr. Reid, to get rid of the distress of those fearful visions by which he was frequently annoyed. I could never manage to accomplish this in an ordinary dream of terror, but I have sometimes succeeded in doing so during an attack of night-mare; and have thus very materially mitigated the alarm produced by that distressing affection. This intellectual operation may also be successfully employed to dispel the lowness of spirits under which we often awake from unpleasant visions, by teaching us that the depression we experience is merely the result of some unnatural mental operation, and proceeds from causes purely fictitious. Indeed, all kinds of melancholy not based upon some obvious foundation, might be mitigated or dispelled altogether, could we only oppose our feelings with the weapons of reason, and see things as they really are, and not as they only seem to be.

CHAPTER VIII.

PROPHETIC POWER OF DREAMS.

What dreams presage, what dangers these or those
Portend to sanity, though prudent seers
Revealed of old, and men of deathless fame,
We would not to the superstitious mind
Suggest new throbs, new vanities of fear:
'Tis ours to teach you from the peaceful night
To banish omens, and all restless woes.

ARMSTRONG.

DREAMS have been looked upon by some, as being the occasional means of giving us an insight into futurity. This opinion is so singularly unphilosophical, that I would not have noticed it, were it not advocated even by persons of good sense and education. In ancient times, it was so common as to obtain universal belief; and the greatest men placed as implicit faith in it as in any fact of which their own senses afforded them cognizance. That it is wholly erroneous, however, cannot be doubted; and

any person who examines the nature of the human mind, and the manner in which it operates in dreams, must be convinced, that under no circumstances, except those of a miracle, in which the ordinary laws of nature are triumphed over, can such an event ever take place. But that there was a period when futurity was unfolded in visions—when its gloomy vista was lighted up by the torch of heaven—is also as true as that such periods have departed for ever from the earth. These were the times when God held communion with man; and, breathing wisdom and foresight over his slumbering spirit, gave him a knowledge of circumstances which no human sagacity could have guarded against or foreseen. It was thus that He warned Abimelech of Sarah's relationship to Abraham—that His angel appeared in a dream to Joseph, and foretold the birth of our Saviour—that Nebuchadnezzar beheld in vision the types of his approaching fall—and that Pharaoh witnessed the symbols of that abundance and famine which were respectively to enrich and desolate the land of Egypt. The whole book of Revelations is one magnificent dream—one gush of the Divine Spirit overflowing the mind of its author in sleep, and bringing the most distant ages in emblem before his eyes. But such signal manifestations of God's intimacy with man, have long gone

by. He appears no more in vision, to warn, to instruct, to solace. He speaks not in thunder upon Mount Sinai, or moves before His people as a pillar of fire, or arrests the laws of nature in their behalf. Earth has become more remote from heaven than in those favoured times, and is now, in all cases, governed by the fundamental laws originally made by God for its regulation.

Such being the case, it is impossible to conceive that the knowledge of any forthcoming event can be communicated to us in dreams. During their existence, only certain of our faculties are in operation; and, as intellectual beings, we are greatly below what we are in the waking state. How, therefore, in this imperfect mental condition we should be warned of events which are utterly hidden from us when all our faculties are in play, is inconceivable, unless we suppose the existence of a miracle. This is the dilemma into which the believers of the prophetic power of dreams are brought: they virtually admit the existence of miracles. Now, miracles are, in their very nature, opposed to the laws of creation; and these laws no being can set aside, save the Deity Himself, who made them. On this account, future events being communicated in a dream, require the presence of a miracle—a miracle requires the interposition of God, and a

change in His own laws; and such change in any particular case, must suppose the individual to whom it happens highly favoured indeed by his Maker. If a man can bring himself to believe that God, on his account, would set aside the rules whereby the creation and the human intellect are governed, he may believe in the prophetic power of dreams, but not otherwise: in this predicament he is involved; and if the imputed performances of Prince Hohenlohe are supported by what, in the common affairs of life, would seem good evidence, he must give them his full assent. In the present state of the world, the doctrine of miracles is glaringly absurd; and, even when they are supported by what appears irresistible proof, no man is justified in believing them—for this plain reason, that they demand a suspension of laws, which cannot be effected without the direct interference of God. Did we even see one carried into execution, we are not warranted in trusting the evidence of our senses. "I would not," says an eminent writer, "believe in a miracle, although it were performed in open day, before the Academy of Sciences of Paris, or the Royal Society of London." In such cases, the wisest plan is to adopt the beautiful maxim of the President Dupaty: "Between men who say *such a thing is*, and nature who says *such a thing is not*, we must believe nature."

If a man discredits miracles, he must altogether ridicule the idea that dreams have the power of unveiling actual or future events: if he does not, he is then at liberty to place faith in any thing he chooses; and may, with perfect consistency, believe that Mahomet flew to heaven on an ass—that the moon is made of green cheese—and that the Grand Seignior and the orb of day are first cousins.

At the same time, there can be no doubt that many circumstances occurring in our dreams have been actually verified; but this must be regarded as altogether the effect of chance; and for one dream which turns out to be true, at least a thousand are false. In fact, it is only when they are of the former description, that we take any notice of them; the latter are looked upon as mere idle vagaries, and speedily forgotten. If a man, for instance, dreams that he has gained a law-suit in which he is engaged, and if this circumstance actually takes place, there is nothing at all extraordinary in the coincidence: his mind was full of the subject, and, in sleep, naturally resolved itself into that train of ideas in which it was most deeply interested. Or if we have a friend engaged in war, our fears for his safety will lead us to dream of death or captivity, and we may see him pent up in a hostile prison-house, or lying dead upon the battle plain. And

should these melancholy catastrophes take place, we call our vision to memory; and in the excited state of mind into which we are thrown, are apt to consider it as a prophetic warning, indicative of disaster. The following is a very good illustration of this particular point.

Case.—Miss R——, a young lady, a native of Ross-shire, was deeply in love with an officer who accompanied Sir John Moore in the Peninsular War. The constant danger to which he was exposed, had an evident effect upon her spirits. She became pale and melancholy in perpetually brooding over his fortunes, and, in spite of all that reason could do, felt a certain conviction that when she last parted with her lover, she had parted with him for ever. In vain was every scheme tried to dispel from her mind the awful idea: in vain were all the sights which opulence could command, unfolded before her eyes. In the midst of pomp and gaiety, when music and laughter floated around her, she walked as a pensive phantom, over whose head some dreadful and mysterious influence hung. She was brought by her affectionate parents to Edinburgh, and introduced into all the mirth of that gay metropolis, but nothing could restore her, or banish from her mind the insupportable pang which invested it. The song and the dance may dissipate the feebler sorrows of

the heart, but in a woe so deeply rooted as hers, their syren influence was tried in vain: they only aggravated her distress, and made the bitterness of despair more poignant. In a surprisingly short period, her graceful form declined into all the appalling characteristics of a fatal illness; and she seemed rapidly hastening to the grave, when a dream confirmed the horrors she had long anticipated, and gave the finishing stroke to her sorrows. One night, after falling asleep, she imagined she saw her lover, pale, bloody, and wounded in the breast, enter her apartment. He drew aside the curtains of the bed, and with a look of the utmost mildness, informed her that he had been slain in battle, desiring her, at the same time, to comfort herself, and not take his death too seriously to heart. It is needless to say what influence this vision had upon a mind so replete with woe. It withered it entirely, and the unfortunate girl died a few days thereafter, but not without desiring her parents to note down the day of the month on which it happened, and see if it would be confirmed, as she confidently declared it would. Her anticipation was correct, for accounts were shortly after received that the young man was slain at the battle of Corunna, which was fought on the very day on the night of which his mistress had beheld the vision.

This relation, which may be confidently relied upon, is one of the most striking examples of identity between the dream and the real circumstances with which I am acquainted, but it must be looked upon as merely accidental. The lady's mind was deeply interested in the fate of her lover, and full of that event which she most deeply dreaded—his death. The time of this occurrence, as coinciding with her dream, is certainly curious, but still there is nothing in it which can justify us in referring it to any other origin than chance. The following events, which occurred to myself, in August, 1821, are almost equally remarkable, and are imputable to the same fortuitous cause.

I was then in the County of Caithness, when I dreamed that a near relation of my own, residing in Glasgow, had suddenly died; and immediately thereafter awoke in a state of inconceivable terror, similar to that produced by a paroxysm of night-mare. The same day, happening to be writing home, I mentioned the circumstance in a half-jesting, half-earnest way. To tell the truth, I was afraid to be serious, lest I should be laughed at for putting any faith in dreams. However, in the interval between writing and receiving an answer, I remained in a state of most unpleasant suspense. I felt a presentiment that something dreadful had happened, or

would happen; and although I could not help blaming myself for a childish weakness in so feeling, I was unable to get rid of the painful idea which had taken such rooted possession of my mind. Three days after sending away the letter, what was my astonishment when I received one written the day subsequent to mine, and stating that the relative of whom I had dreamed, had been struck with a fatal shock of palsy the day before—*viz.* the very day on the morning of which I had beheld the appearance in my dream! My friends received my letter two days after sending their own away, and were naturally astonished at the circumstance. I may state that my relation was in perfect health before the fatal event took place. It came upon him like a thunderbolt, at a period when no one could have the slightest anticipation of danger.

The following case will interest the reader, both on its own account, and from the remarkable coincidence between the dream and the succeeding disaster, but, like all other instances of the kind, this also must be referred to chance.

Case.—"Being in company the other day, when the conversation turned upon dreams, I related one, which, as it happened to my own father, I can answer for the perfect truth of it. About the year 1731, my father, Mr. D. of K——, in the County of Cum-

berland, came to Edinburgh to attend the classes, having the advantage of an uncle in the regiment then in the Castle, and remained under the protection of his uncle and aunt, Major and Mrs. Griffiths, during the winter. When spring arrived, Mr. D. and three or four young gentlemen from England, (his intimates,) made parties to visit all the neighbouring places about Edinburgh, Roslin, Arthur's Seat, Craig-Millar, &c. &c. Coming home one evening from some of those places, Mr. D. said, 'We have made a party to go a-fishing to Inch-Keith tomorrow, if the morning is fine, and have bespoke our boat; we shall be off at six:' no objection being made, they separated for the night.

"Mrs. Griffiths had not been long asleep, till she screamed out in the most violent agitated manner, 'The boat is sinking; save, oh, save them!' The Major awaked her, and said, 'Were you uneasy about the fishing party?' 'Oh no,' said she, 'I had not once thought of it.' She then composed herself, and soon fell asleep again: in about an hour, she cried out in a dreadful fright, 'I see the boat is going down.' The Major again awoke her, and she said, 'It has been owing to the other dream I had; for I feel no uneasiness about it.' After some conversation, they both fell sound asleep, but no rest could be obtained for her; in the most extreme agony, she again

screamed, 'They are gone; the boat is sunk!' When the Major awakened her, she said, 'Now I cannot rest; Mr. D. must not go, for I feel, should he go, I would be miserable till his return; the thoughts of it would almost kill me.'

"She instantly arose, threw on her wrapping-gown, went to his bed-side, for his room was next their own, and with great difficulty she got his promise to remain at home. 'But what am I to say to my young friends whom I was to meet at Leith at six o'clock?' 'With great truth you may say your aunt is ill, for I am so at present; consider, you are an only son, under our protection, and should any thing happen to you, it would be my death.' Mr. D. immediately wrote a note to his friends, saying he was prevented from joining them, and sent his servant with it to Leith. The morning came in most beautifully, and continued so till three o'clock, when a violent storm arose, and in an instant the boat, and all that were in it, went to the bottom, and were never heard of, nor was any part of it ever seen." *

Equally singular is the following case, from the "Memoirs of Lady Fanshawe."

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* "Blackwood's Edinburgh Magazine," vol. xix. p. 736.

Case.—"My mother being sick to death of a fever, three months after I was born, which was the occasion she gave me suck no longer, her friends and servants thought to all outward appearance she was dead, and so lay almost two days and a night; but Dr. Winston coming to comfort my father, went into my mother's room, and looking earnestly on her face, said, 'She was so handsome, and now looks so lovely, I cannot think she is dead;' and suddenly took a lancet out of his pocket, and with it cut the sole of her foot, which bled. Upon this, he immediately caused her to be laid upon the bed again, and to be rubbed, and such means as she came to life, and opening her eyes, saw two of her kinswomen stand by her, my Lady Knollys and my Lady Russell, both with great wide sleeves, as the fashion then was, and said, 'Did not you promise me fifteen years, and are you come again?' which they not understanding, persuaded her to keep her spirits quiet in that great weakness wherein she then was; but some hours after, she desired my father and Dr. Howlsworth might be left alone with her, to whom she said, 'I will acquaint you, that during the time of my trance I was in great quiet, but in a place I could neither distinguish nor describe; but the sense of leaving my girl, who is dearer to me than all my children, remained a trouble upon my

spirits. Suddenly I saw two by me, clothed in long white garments, and methought I fell down upon my face upon the dust; and they asked why I was so troubled in so great happiness. I replied, O let me have the same grant given to Hezekiah, that I may live fifteen years to see my daughter a woman: to which they answered, It is done: and then, at that instant, I awoke out of my trance!' and Dr. Howlsworth did there affirm, that that day she died made just fifteen years from that time."

At Newark-upon-Trent, a curious custom, founded upon the preservation of Alderman Clay and his family by a dream, has prevailed since the days of Cromwell. On 11th March, every year, penny-loaves are given away to any one who chooses to appear at the Town Hall and apply for them, in commemoration of the Alderman's deliverance, during the siege of Newark by the Parliamentary forces. This gentleman, by will, dated 11th December, 1694, gave to the Mayor and Aldermen one hundred pounds, the interest of which was to be given to the Vicar yearly, on condition of his preaching an annual sermon. Another hundred pounds were also appropriated for the behoof of the poor, in the way above-mentioned. The origin of this bequest is singular. During the bombardment of Newark by Oliver Cromwell's forces, the Alderman dreamed three nights succes-

sively that his house had taken fire, which produced such a vivid impression upon his mind, that he and his family left it, and in a few days the circumstances of his vision actually took place, by the house being burned down by the besiegers.

Persons are said to have had the period of their own death pointed out to them in dreams. I have often heard the case of the late Mr. M. of D—— related in support of this statement. It is certainly worth telling, not on account of any supernatural character belonging to it, but simply from the extraordinary coincidence between the dream and the subsequent event. This gentleman dreamed one night that he was out riding, when he stopped at an inn on the road-side for refreshment, where he saw several people whom he had known some years before, but who were all dead. He was received kindly by them, and desired to sit down and drink, which he accordingly did. On quitting this strange company, they exacted a promise from him that he would visit them that day six weeks. This he promised faithfully to do, and, bidding them farewell, he rode homewards. Such was the substance of his dream, which he related in a jocular way to his friends, but thought no more about it, for he was a person above all kinds of superstition. The event, however, was certainly curious enough, as well as melancholy,

for on that very day six weeks on which he engaged to meet his friends at the inn, he was killed, in attempting to spring his horse over a five-barred gate. The famous case of Lord Lyttleton is also cited as an example of a similar kind, but with less show of reason, for this case is now generally supposed to be a forgery; and so will almost every other of the same kind, if narrowly investigated. At the same time, I do not mean to doubt but what such an event foretold in a dream may occasionally come to pass, but I would refer the whole to fortuitous coincidence. Men dream every now and then that they will die on a certain day, yet how seldom do we see those predictions fulfilled by the result! In very delicate people, indeed, such a visionary communication, by acting fatally upon the mind, might be the means of occasioning its own fulfilment. Examples of this kind are related by authors; and I think them very probable. In such cases, it has been customary for the friends of the individual to put back the clock an hour or two, so as to let the fatal period pass by without his being aware of it; and as soon as it was fairly passed, to inform him of the circumstance, and laugh him out of his apprehension.

There is another way in which dreams are said to foretell death; and that is by the accession of frightful visions immediately before fatal illnesses. This,

however, goes for nothing in the way of argument, for it was the state of the system shortly before the attack of disease which induced such dreams. According to Silimachus, the epidemic fever which prevailed at Rome was ushered in by attacks of night-mare; and Sylvius Deleboe, who describes the epidemic which raged at Leyden in 1669, states, that previous to each paroxysm of the fever, the patient fell asleep, and suffered a severe attack of night-mare. The vulgar belief, therefore, that unpleasant dreams are ominous of death, is not destitute of foundation, but the cause why they should be so is perfectly natural. It is the incipient disease which produces the dreams, and the fatal event which often follows, is a natural consequence of that disease.

Dreams, therefore, must be held altogether incapable of giving the slightest insight into futurity; but there is one property undoubtedly possessed by sleep—*viz.* that of sometimes recalling to the mind events which had been wholly obliterated from it, and restoring them with all the force of their original impression. Nor is this power peculiar to slumber, but manifests itself occasionally in mania and delirium, as the following singular instance may show. A girl was seized with a dangerous fever, and in the delirious paroxysm accompanying it, was observed

to speak in a strange language, which for some time no one could understand. At last, it was ascertained to be Welsh—a tongue of which she was wholly ignorant at the time she was taken ill, and of which she could not speak a single syllable after her recovery. For some time, the circumstance was unaccountable, till, on inquiry, it was found that she was a native of Wales, and had been familiar with the language of that country in her childhood, but had wholly forgotten it afterwards. During the delirium of fever, the obliterated impressions of infancy were brought to her mind, and continued to operate there so long as she remained under the mental excitation occasioned by the disease, but no longer; for so soon as the state of mind which recalled these impressions was removed, they also disappeared, and she was as ignorant of Welsh as before she was taken ill.

It is undoubtedly owing to the faculty, sometimes possessed by sleep, of renewing long-forgotten ideas, that persons have had important facts communicated to them in dreams. There have been instances, for example, where valuable documents, sums of money, &c., have been concealed, and where either the person who secreted them, or he who had the place of their concealment communicated to him, may have forgotten every thing therewith connected. He may

then torture his mind in vain, during the waking state, to recollect the event; and it may be brought to his remembrance at once in a dream. In such cases, an apparition is generally the medium through which the seemingly mysterious knowledge is communicated. The imagination conjures up some phantom that discloses the secret, which circumstance, proceeding in reality from a simple operation of the mind, is straightway converted into something supernatural, and invested with all the attributes of wonder and awe. When such spectral forms appear, and communicate some fact which turns out to be founded on truth, the person is not always aware that the whole occurred in a dream, but often fancies that the apparition appeared to him when he was broad awake, and, during this state, communicated the intelligence. When we hear, therefore, of hidden treasures, wills, &c., being disclosed in such a manner, we are not always to scout the report as false. The spectre communicating the intelligence was certainly the mere chimera of the dreamer's brain, but the facts revealed, apparently by this phantom, may, from the above circumstance, be substantially true. The following curious case is strikingly in point, and is given by Sir Walter Scott in his notes to the new edition of " The Antiquary."

Case.—" Mr. R——d of Bowland, a gentleman of landed property in the Vale of Gala, was prosecuted for a very considerable sum, the accumulated arrears of teind, (or tythe,) for which he was said to be indebted to a noble family, the titulars (lay impropriétors of the tythes). Mr. R——d was strongly impressed with the belief that his father had, by a form of process peculiar to the law of Scotland, purchased these lands from the titular, and, therefore, that the present prosecution was groundless. But after an industrious search among his father's papers, an investigation of the public records, and a careful inquiry among all persons who had transacted law business for his father, no evidence could be recovered to support his defence. The period was now near at hand when he conceived the loss of his law-suit to be inevitable, and he had formed the determination to ride to Edinburgh next day, and make the best bargain he could in the way of compromise. He went to bed with this resolution, and, with all the circumstances of the case floating upon his mind, had a dream to the following purpose. His father, who had been many years dead, appeared to him, he thought, and asked him why he was disturbed in his mind. In dreams, men are not surprised at such apparitions. Mr. R——d thought that he informed his father of the cause of

his distress, adding, that the payment of a considerable sum of money was the more unpleasant to him, because he had a strong consciousness that it was not due, though he was unable to recover any evidence in support of his belief. 'You are right, my son,' replied the paternal shade, 'I did acquire right to these teinds, for payment of which you are now prosecuted. The papers relating to the transaction are in the hands of Mr. ———, a writer, (or attorney,) who is now retired from professional business, and resides at Inveresk, near Edinburgh. He was a person whom I employed on that occasion for a particular reason, but who never on any other occasion transacted business on my account. It is very possible,' pursued the vision, 'that Mr. ——— may have forgotten a matter which is now of a very old date; but you may call it to his recollection by this token, that when I came to pay his account, there was difficulty in getting change for a Portugal piece of gold, and we were forced to drink out the balance at a tavern.'

"Mr. R——d awoke in the morning with all the words of the vision imprinted on his mind, and thought it worth while to walk across the country to Inveresk, instead of going straight to Edinburgh. When he came there, he waited on the gentleman mentioned in the dream, a very old man. Without

saying any thing of the vision, he inquired whether he remembered having conducted such a matter for his deceased father. The old gentleman could not at first bring the circumstance to his recollection, but on mention of the Portugal piece of gold, the whole returned upon his memory; he made an immediate search for the papers, and recovered them—so that Mr. R——d carried to Edinburgh the documents necessary to gain the cause which he was on the verge of losing.

"The author has often heard this story told by persons who had the best access to know the facts, who were not likely themselves to be deceived, and were certainly incapable of deception. He cannot, therefore, refuse to give it credit, however extraordinary the circumstances may appear. The circumstantial character of the information given in the dream, takes it out of the general class of impressions of the kind, which are occasioned by the fortuitous coincidence of actual events with our sleeping thoughts. On the other hand, few will suppose that the laws of nature were suspended, and a special communication from the dead to the living permitted, for the purpose of saving Mr. R——d a certain number of hundred pounds. The author's theory is, that the dream was only the recapitulation of information which Mr. R——d had really received

from his father while in life, but which at first he merely recalled as a general impression, that the claim was settled. It is not uncommon for persons to recover, during sleep, the thread of ideas which they have lost during their waking hours. It may be added, that this remarkable circumstance was attended with bad consequences to Mr. R——d; whose health and spirits were afterwards impaired, by the attention which he thought himself obliged to pay to the visions of the night."

It will be seen from the above case, that Sir Walter Scott's theory corresponds with that which has been here adopted. The circumstances altogether must have been highly startling to the individual; and he doubtless died in the belief of having actually seen an apparition, and had events supernaturally revealed to him. This is the utmost extent to which the power of sleep extends in communicating hidden facts. It may sometimes penetrate into the dim regions of the past, but into the future it cannot force its way. To enable it to accomplish such a triumph, the miraculous interference of a Superior Being, who could supersede His own fixed laws, is absolutely necessary; and the man's belief must be great indeed who can conceive such an occurrence taking place in the existing state of the world.

In talking of spectres, it seems probable that the

apparition of Julius Cæsar, which appeared to Brutus, and announced to the latter that he would meet him at Philippi, was the result of a dream. If it did not originate in this source, it may have occurred, when he was awake, from a highly excited state of the brain, such as that which existed in the case of Nicolai, to which we shall allude in next chapter.

CHAPTER IX.

NIGHT-MARE.

Fantastic passions, maddening brawl,
And shame and terror over all,
Deeds to be hid, which were not hid;
Which all confused I could not know
Whether I suffered or I did;
For all seemed guilt, remorse, or woe,
My own, or others'; still the same
Soul-stifling fear, heart-sickening shame.

COLERIDGE.

THE following are the conditions of night-mare. 1. An active state of the memory, imagination, &c. 2. An impaired state of the respiratory functions. 3. A torpor in the power of volition. The judgment is generally more or less awake; and in this respect night-mare differs from simple dreaming, where that faculty is suspended.

This affection, the EPHIALTES of the Greeks, and INCUBUS of the Romans, is one of the most distressing to which human nature is subject.

Imagination cannot conceive the horrors it gives rise to, or language describe them in adequate terms. They are a thousand times more frightful than the visions conjured up by necromancy or *diablerie;* and far transcend every thing in history or romance, from the fable of the writhing and asp-encircled Laocoon to Dante's appalling picture of Ugolino and his famished offspring, or the hidden tortures of the Spanish Inquisition. The whole mind, during the paroxysm, is wrought up to a pitch of unutterable despair: a spell is laid upon the faculties, which freezes them into inaction; and the wretched victim feels as if pent alive in his coffin, and overpowered by resistless and immitigable pressure.

The modifications which night-mare assumes are infinite; but one passion is never absent—that of utter and incomprehensible dread. Sometimes the sufferer is buried beneath overwhelming rocks, which crush him on all sides, but still leave him with a miserable consciousness of his situation. Sometimes he is involved in the coils of a horrid, slimy monster, whose eyes have the phosphorescent glare of the sepulchre, and whose breath is poisonous as the marsh of Lerna. Every thing horrible, disgusting, or terrific in the physical or moral world, is brought before him in fearful array: he is hissed at by ser-

pents, tortured by demons, stunned by the hollow voices and cold touch of apparitions. A mighty stone is laid upon his breast, and crushes him to the ground in helpless agony: mad bulls and tigers pursue his palsied footsteps: the unearthly shrieks and gibberish of hags, witches, and fiends float around him. In whatever situation he may be placed, he feels superlatively wretched: he is Ixion working for ages at his wheel: he is Sisyphus rolling his eternal stone: he is stretched upon the iron bed of Procrustes: he is prostrated by inevitable destiny beneath the approaching wheels of the car of Juggernaut. At one moment he may have the consciousness of a malignant demon being at his side: then, to shun the sight of so appalling an object, he will close his eyes, but still the fearful being makes its presence known; for its icy breath is felt diffusing itself over his visage, and he knows that he is face to face with a fiend. Then, if he look up, he beholds horrid eyes glaring upon him, and an aspect of hell grinning at him with even more than hellish malice. Or, he may have the idea of a monstrous hag squatted upon his breast—mute, motionless, and malignant; an incarnation of the Evil Spirit—whose intolerable weight crushes the breath out of his body, and whose fixed, deadly, incessant stare petrifies him with horror, and makes his very existence insufferable.

In every instance, there is a sense of oppression and helplessness; and the extent to which these are carried, varies according to the violence of the paroxysm. The individual never feels himself a free agent; on the contrary, he is spell-bound by some enchantment, and remains an unresisting victim for malice to work its will upon. He can neither breathe, nor walk, nor run with his wonted facility. If pursued by any imminent danger, he can hardly drag one limb after another; if engaged in combat, his blows are utterly ineffective; if involved in the fangs of any animal, or in the grasp of an enemy, extrication is impossible. He struggles, he pants, he toils, but it is all in vain: his muscles are rebels to the will, and refuse to obey its calls. In no case is there a sense of complete freedom: the benumbing stupor never departs from him; and his whole being is locked up in one mighty spasm. Sometimes he is forcing himself through an aperture too small for the reception of his body, and is there arrested and tortured by the pangs of suffocation produced by the pressure to which he is exposed; or he loses his way in a narrow labyrinth, and gets involved in its contracted and inextricable mazes; or he is entombed alive in a sepulchre, beside the mouldering dead. There is, in most cases, an intense reality in all that he sees, or hears, or feels. The aspects of the

hideous phantoms which harass his imagination are bold and defined; the sounds which greet his ear appallingly distinct; and when any dimness or confusion of imagery does prevail, it is of the most fearful kind, leaving nothing but dreary and miserable impressions behind it.

Much of the horror experienced in this dreadful affection will depend upon the activity of the imagination, upon the condition of the body, and upon the previous state of mental exertion before going to sleep. If, for instance, we have been engaged in the perusal of such works as "The Monk," "The Mysteries of Udolpho," or "Satan's Invisible World Discovered;" and if an attack of night-mare should supervene, it will be aggravated into sevenfold horror by the spectral phantoms with which our minds have been thereby filled. We will enter into all the fearful mysteries of these writings, which, instead of being mitigated by slumber, acquire an intensity which they never could have possessed in the waking state. The apparitions of murdered victims, like the form of Banquo, which wrung the guilty conscience of Macbeth, will stalk before us; we are surrounded by sheeted ghosts, who glare upon us with their cold sepulchral eyes; our habitation is among the vaults of ancient cathedrals, or among the dungeons of ruined monasteries, and our companions are the dead.

At other times, an association of ludicrous images passes through the mind: every thing becomes incongruous, ridiculous, and absurd. But even in the midst of such preposterous fancies, the passion of mirth is never for one moment excited; the same blank despair, the same freezing *inertia*, the same stifling torture, still harass us; and so far from being amused by the laughable drama enacting before us, we behold it with sensations of undefined horror and disgust.

In general, during the attack, the person has the consciousness of an utter inability to express his horror by cries. He feels that his voice is half choked by impending suffocation, and that any exertion of it, farther than a deep sigh or groan, is impossible. Sometimes, however, he conceives that he is bellowing with prodigious energy, and wonders that the household are not alarmed by his noise. But this is an illusion; those outcries which he fancies himself uttering, are merely obscure moans, forced with difficulty and pain from the stifled penetralia of his bosom.

Night-mare takes place under various circumstances. Sometimes, from a state of perfect sleep we glide into it, and feel ourselves unconsciously overtaken by its attendant horrors: at other times, we experience it stealing upon us like a thief at a period

when we are all but awake, and aware of its approach. We have then our senses about us, only, perhaps, a little deadened and confused by incipient slumber, and we feel the gradual advance of the fiend, without arousing ourselves, and scaring him away, although we appear to possess the full ability of doing so. At one time, night-mare melts into unbroken sleep, or pleasing dreams; and we awake in the morning with merely the remembrance of having had one of its attacks: at another, it arouses us by its violence, and we start out of it with a convulsive shudder. At the moment of throwing off the fit, we seem to turn round upon our sides with a mighty effort, as if from beneath the pressure of a superincumbent weight; and the more thoroughly to awake ourselves, we generally kick violently, beat our breasts, rise up in bed, and cry out once or twice. As soon as we are able to exercise our volition or voice with freedom, the paroxysm is at end; but for some time after we experience extreme terror, and often cold shivering, while the heart throbs violently, and the respiration is hurried. These two latter circumstances are doubted by Dr. Darwin, but I am convinced of their existence, both from what I have experienced in my own person, and from what I have been told by others: indeed, analogy would irresistibly lead us to conclude that they must

exist; and whoever carefully investigates the subject, will find that they do almost universally.

An opinion prevails, that during incubus the person is always upon his back; and the circumstance of his usually feeling as if in that posture, together with the relief which he experiences on turning round upon his side, are certainly strong presumptions in favour of its accuracy. The sensations, however, which occur in this state, are fallacious in the highest degree. We have seldom any evidence either that he was on his back, or that he turned round at all. The fact, that he supposed himself in the above position during the fit, and the other fact, that, on recovering from it, he was lying on his side, may have produced the illusion; and where he never moved a single muscle, he may conceive that he turned round after a prodigious effort. Again; if a man were really on his back when the fit came on, he would naturally, on recovering from it, throw himself into a position the reverse of that under which, during its continuance, he was undergoing such extreme distress. I have frequently had attacks of this disorder while sitting in an arm-chair, or with my head leaning against a table. In fact, these are the most likely positions to bring it on, the lungs being then more completely compressed than in almost any other posture. I have also had it most

distinctly while lying on the side, and I know many cases of a similar description in others. Although, therefore, night-mare may take place more frequently upon the back than upon the sides, the circumstance of its occurring only in the former of these postures, is altogether incorrect; and where we are much addicted to its attacks, no posture whatever will protect us.

Persons not particularly subject to incubus, feel no inconvenience, save temporary terror or fatigue, from any occasional attack which they may have; but those with whom it is habitual, are apt to experience a certain degree of giddiness, ringing in the ears, tension of the forehead, flashing of light before the eyes, and other symptoms of cerebral congestion. There is also a bad taste in the mouth, and more or less fullness about the pit of the stomach.

The illusions which occur, are perhaps the most extraordinary phenomena of night-mare, and so strongly are they often impressed upon the mind, that even on awaking we find it impossible not to believe them real. We may, for example, be sensible of knockings at the door of our apartment, hear familiar voices calling upon us, and see individuals passing through the chamber. In many cases, no arguments, no efforts of the understanding will convince us that these are merely the chimeras of sleep.

We regard them as events of actual occurrence, and will not be persuaded to the contrary. With some, such a belief has gone down to the grave; and others have maintained it strenuously for years, till a recurrence of the illusions, under circumstances which rendered their real existence impossible, has shown them that the whole was a dream. I have no doubt that most of the current ghost stories have had their origin in this source. A spectre has been conjured into birth by some fearful vision, and the deception has been so complete as to lay the understanding prostrate before it. Even when we are broad awake, it has been proved, that by some disordered action of the brain, we may apparently be haunted by apparitions. Such was the case of Nicolai the Prussian bookseller. "I have myself," says he, in his most singular and interesting narrative, "experienced a case of this nature, which to me appears highly remarkable, both psychologically and medicinally. I saw, in a state of mind completely sound, and, after the first terror was over, with perfect calmness, for nearly two months, almost constantly and involuntarily, a vast number of human and other forms, and even heard their voices, though all this was merely the consequence of a diseased state of the nerves, and an irregular circulation of the blood." Apparitions, therefore, I would impute either to the

intense power of illusion operating in a fearful dream, or to a morbid excitement of certain faculties of the brain while we are awake. Few persons are gifted with philosophy enough to investigate such phenomena; and, instead of using their reasoning powers, they blindly give way to the fallacious evidences of the senses, and thus involve themselves in error and misery.

The following case gives a good idea of the strength of illusion in dreams.

Case of Mr. Waller.—"In the month of February, 1814, I was living in the same house with a young gentleman, the son of a peer of the United Kingdom, who was at that time under my care, in a very alarming state of health; and who had been, for several days, in a state of violent delirium. The close attention which his case required from me, together with a degree of personal attachment to him, had rendered me extremely anxious about him; and as my usual hours of sleep suffered a great degree of interruption from the attendance given to him, I was, from that cause alone, rendered more than usually liable to the attacks of night-mare, which consequently intruded itself every night upon my slumbers. The young gentleman in question, from the violence of his delirium, was with great difficulty kept in bed; and had once or twice eluded the

vigilance of his attendants, and jumped out of bed; an accident of which I was every moment dreading a repetition. I awoke from my sleep one morning about four o'clock, at least it appears to me that I awoke, and heard distinctly the voice of this young gentleman, who seemed to be coming hastily up the stairs leading to my apartment, calling me by name in the manner he was accustomed to do in his delirium; and immediately after, I saw him standing by my bed-side, holding the curtains open, expressing all that wildness in his looks which accompanies violent delirium. At the same moment, I heard the voices of his two attendants coming up stairs in search of him, who likewise came into the room and took him away. During all this time, I was attempting to speak, but could not articulate. I thought, however, that I succeeded in attempting to get out of bed, and assisting his attendants in removing him out of the room; after which, I returned to bed, and instantly fell asleep. When I waited on my patient in the morning, I was not a little surprised to find that he was asleep; and was utterly confounded on being told that he had been so all night; and as this was the first sleep he had enjoyed for three or four days, the attendants were very minute in detailing the whole particulars of it. Although this account appeared inconsistent with what I conceived I had

seen, and with what I concluded they knew as well as myself, I did not for some time perceive the error into which I had been led, till I observed that some of my questions and remarks were not intelligible; then I began to suspect the true source of the error, which I should never have discovered, had not experience rendered those hallucinations familiar to me. But the whole of this transaction had so much consistency and probability in it, that I might, under different circumstances, have remained for ever ignorant of having been imposed on in this instance, by my senses."*

During night-mare, the deepness of our slumber varies much at different times. Sometimes we are in a state closely approximating upon perfect sleep; at other times we are almost completely awake; and it will be remarked, that the more awake we are, the greater is the violence of the paroxysm. I have frequently experienced the affection stealing upon me while in perfect possession of my faculties, and have undergone the greatest tortures, being haunted by spectres, hags, and every sort of phantom—having, at the same time, a full consciousness that I was labouring under incubus, and that all the terri-

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* Waller's Treatise.

fying objects around me were the creations of my own brain. This shows that the judgment is often only very partially affected, and proves also that night-mare is not merely a disagreeable dream, but a painful bodily affection. Were it nothing more than the former, we could not possess a knowledge of our condition, for, in simple visions, the reasoning powers are almost uniformly abolished, and we scarcely ever for a moment doubt the reality of what we see, or hear, or feel. In night-mare, this is often, perhaps generally, the case, but we frequently meet with instances, in which, during the worst periods of the fit, we possess our consciousness almost unimpaired.

There are great differences in the duration of the paroxysm, and also in the facility with which it is broken. I know not of any method by which the period to which it extends can be estimated, for the sufferer has no data to go by, and time, as in all modifications of dreaming, is subjected to the most capricious laws—an actual minute, in one case, being made to embrace an imaginary hour, or a real hour being contracted within the limits of a supposed minute. Of this point, therefore, we must be contented to remain in ignorance; but it may be conceived that the attack will be as various in its duration, as in the characters which it assumes—in

one case extending over ten times the space which it covers in another. With regard to the breaking of the fit, the differences are equally great. Sometimes the slightest agitation of the body, the opening of the chamber door, or calling slightly to the sufferer, will arouse him; at other times, he requires to be shaken violently, and called upon long and loudly before he is released.

Some people are much more prone to incubus than others. Those whose digestion is healthy, whose minds are at ease, and who go supperless to bed, will seldom be troubled with it. Those, again, who keep late hours, study hard, eat heavy suppers, and are subject to bile, acid, or hypochondria, are almost sure to be more or less its victims. There are particular kinds of food, which pretty constantly lead to the same result, such as cheese, cucumbers, almonds, and whatever is hard to be digested. Hildesheim, in his "De Affectibus Capitis," justly remarks, "that he who wishes to know what nightmare is, let him eat chesnuts before going to sleep, and drink feculent wine after them."

Certain diseases, also, are apt to induce it, such as asthma, hydrothorax, angina pectoris, and other varieties of dyspnœa. Men are more subject to it than women, probably from their stomachs being more frequently disordered, and their minds more

intently occupied. Sailors, in particular, owing to the hard and indigestible nature of their food, are its most frequent victims; and it is a general remark that it more frequently occurs at sea than on shore. I have no doubt that much of the superstitious belief of these men, in apparitions, proceeds from the phantoms which it calls into existence. Unmarried women are more annoyed with it, than those who are married; and the latter, when pregnant, have it oftener than at other times. Persons who were extremely subject to the complaint in their youth, sometimes get rid of it when they reach the age of puberty, owing, probably, to some change in the constitution which occurs at this time.

There have been a good many opinions with regard to the proximate cause of incubus; and authors have generally looked upon it as involved in considerable obscurity. An impeded circulation of blood through the pulmonary arteries, compression of the diaphragm by a full stomach, and torpor of the intercostal muscles, are all mentioned as contributing wholly or partially to the event. I am of opinion that either of these states may cause nightmare, but that, in most cases, they are all combined. Any thing, in fact, which impedes respiration, may give rise to the disorder, whether it be asthma, hydrothorax, distended stomach, muscular torpor, or

external compression. The causes, then, are various, but it will be found that, whatever they may be, their ultimate operation is upon the lungs.

We have already seen that in ordinary sleep, particular states of the body are apt to induce visions. The clothes, for instance, slipping off us, will often partially break our slumber, and make us dream of walking about in a state of nakedness; while too much heat calls forth ideas of burning deserts and scorching suns. If causes comparatively so trivial, are capable of producing such trains of ideas, it is easily conceivable that a sense of suffocation, like that which occurs in night-mare, may give birth to all the horrid phantoms seen in that distressing affection. The physical suffering in such a case, exalts the imagination to its utmost pitch, fills it with spectres and chimeras, and plants an immoveable weight or malignant fiend upon our bosom to crush us into agony. Let us see how such physical suffering is brought about.

Any disordered state of the stomach may produce it. First.—This organ may be so distended with food or wind as to press upon the diaphragm, contract the dimensions of the chest, arrest the blood in the pulmonary arteries, and thereby impede respiration. In this case, the heart is gorged to excess; it can hardly get rid of the blood which is poured into

it, and heaves and toils with its unaccustomed burden, thus aggravating the difficulty of breathing, and rendering all the sensations more painful. Circumstances like these alone, are sufficient to produce night-mare; and the cause from the first is purely mechanical.

Secondly.—The state of the stomach may call forth incubus by means more circuitous or indirect. In this case, the viscus is unequal to the task imposed upon it of digesting the food, either from an unusual quantity being thrown upon it, from the food being of a peculiarly indigestible nature, or from actual weakness. Here the sensorial power latent in this organ, is insufficient to carry it through with its operations, and it is obliged to draw upon the rest of the body—upon the brain, the lungs, the muscles, &c., for a supply of that power of which it is deficient. The parts connected with respiration, in giving their portion, reduce themselves to a state of temporary debility, and do not retain a sufficient portion to execute their own actions with due vigour. The pectoral, the intercostal muscles, and the diaphragm become thus paralyzed, as it were; and, the chest not being sufficiently dilated for perfect breathing, a feeling of suffocation inevitably ensues. In like manner, the voluntary muscles rendered inert by the subtraction of their quota of sensorial

power, are unable to exercise their functions, and remain, during the paroxysm, in a state of immoveable torpor. This unequal distribution of power in night-mare continues, till, by producing some excessive uneasiness, it stimulates the will to a violent effort, and breaks the fit; and as soon as this takes place, the balance becomes redressed, and the sensorial equilibrium restored.

Physical suffering of that kind which impedes breathing, may also be occasioned by many other causes—by pleurisy, by empyema, by aneurism of the aorta, by laryngitis, by croup, by external pressure; and, accordingly, all these may give rise to night-mare. If we chance to lie down with a pillow or heavy cloak upon our breast, or to sleep with the body bent forward, and the head supported upon a table, as already mentioned, we may be seized with it; and, in truth, whatever either directly or indirectly acts upon the respiratory organs, and impedes their operation, is pretty sure to bring it on. Even a weak or disordered stomach, in which there is no food, by attracting to itself a portion of their sensorial power to aid its own inadequacies, may induce it. The disorder, therefore, takes place under various circumstances—either by direct pressure upon the lungs, as in distended stomach, or hydrothorax; or by partial torpor of

these viscera or their muscles, owing to a deprivation of sensorial power.

Why are literary men, deep thinkers, and hypochondriacs peculiarly subject to night-mare? The cause is obvious. Such individuals have generally a bad digestion: their stomachs are subject to acidity, and other functional derangements, and, therefore, peculiarly prone to dispose to the complaint. The sedentary life, and habits of intellectual or melancholy reflection in which they indulge, have a tendency not merely to disturb this organ, but to act upon the whole cerebral system: hence, they are far more subject to dreams of every kind than other people, in so far as their minds are more intently employed; and when, in sleep, they are pained by any physical endurance, the activity of their mental powers will naturally associate the most horrible ideas with such suffering, and produce incubus, and all its frightful accompaniments.

Night-mare is sometimes attended with danger when it becomes habitual. It may then give rise to apoplexy, and destroy life; or, in very nervous subjects, may occasion epileptic and hysterical affections, which prove extremely harassing. According to Cœlius Aurelianius, many people die of this complaint. Probably some of those who are found dead in bed have lost their

lives in a fit of incubus, the circumstance being imputed to some other cause. The affection, therefore, in some cases is dangerous; and in all, when it becomes habitual, is such a source of misery, that sleep, instead of being courted as a period of blissful repose, is looked upon with horror, as the appointed season of inexpressible suffering and dread. It becomes, on this account, a matter of importance to contrive some method for preventing the attacks of so fearful a malady. The cause, whatever it may be, must, in the first instance, be removed, and the symptoms thence arising will naturally disappear. If the disorder proceeds from heavy suppers, or indigestible food, these things ought to be given up, and the person should either go supperless to bed, or with such a light meal as will not hurt his digestion. Salted provisions of all kinds must be abandoned, nor should he taste any thing which will lie like a load upon his stomach, or run into the acetous fermentation. For this reason, nuts, cucumbers, cheese, ham, and fruits are all pernicious. If, as is almost always the case, he is subject to heartburn, flatulence, and other dyspeptic symptoms, he should make use of occasional doses of magnesia, or carbonate of potash or soda. I have known a teaspoonful of either of the two latter, or three times that quantity of the former, taken before stepping

into bed, prevent an attack, where, from the previous state of the stomach, I am convinced it would have taken place, had they not been used. Great attention must be paid to the state of the bowels, and of the biliary secretion. For this purpose, the colocynth, the compound rhubarb, or the common aloetic pill, should be made use of in doses of one, two, or three, according to circumstances, till the digestive apparatus is brought into proper play. The common blue pill, used with proper caution, is also an excellent medicine. In all cases, the patient should take abundant exercise, shun late hours, or too much study, and keep his mind in as cheerful a state as possible. The bed he lies on ought to be hard; the pillow not too high; and when the attacks are frequent, and extremely severe, Dr. Darwin recommends that an alarum clock might be hung up in the room, so that the sleep may be interrupted at short intervals. It is a good plan to have another person to sleep in the same bed, who might arouse him from the paroxysm; and he should be directed to lie as little as possible upon the back.

These points comprehend the principal treatment, and when persevered in, will rarely fail in mitigating or removing the disease. Sometimes, however, owing to certain peculiarities of constitution, it may

be necessary to adopt a different plan, or to combine other means along with the present: thus, Whytt, who was subject to night-mare, could only insure himself against an attack, by taking a small glassful of brandy just before going to bed; and some individuals find that a light supper prevents the fit, while no supper at all is sure to bring it on. But these are rare exceptions to the general rule, and when they do occur, must be treated in that manner which experience proves most effectual, without being bound too nicely to the ordinary modes of cure. Blood-letting, which some writers recommend, is useless or hurtful, except in cases where there is reason to suppose that the affection is brought on by plethora. With regard to the other causes of night-mare, such as asthma, hydrothorax, &c., these must be treated on general principles, and it, as one of their symptoms, will depart so soon as they themselves are removed.

Some persons recommend opium for the cure of night-mare, but this medicine I should think more likely to aggravate than relieve the complaint. The late Dr. Polydori, author of "The Vampire," and of an "Essay on Positive Pleasure," was much subject to incubus, and in the habit of using opium for its removal. One morning he was found dead, and on a table beside him stood a glass, which had

evidently contained laudanum and water. From this it was supposed he had killed himself by his own treatment; but whether the quantity of laudanum taken by him was sufficient to destroy life in ordinary circumstances, has never been ascertained.

CHAPTER X.

DAY-MARE.

There is a burden on my breast,
I seem at rest, yet cannot rest;
Air—air I breathe, yet pant for breath:
This is not life—this is not death—
But the drear agony between,
Where all is heard, and felt, and seen;
The wheels of action set ajar;
The body with the soul at war.

DELTA.

I HAVE strong doubts of the propriety of considering this affection as any way different from the incubus, or night-mare. It seems to me merely a modification of the latter, only accompanied by no aberration of the judgment. The person endures precisely many of the same feelings, such as difficult respiration, torpor of the voluntary organs, deep sighing, extreme terror, and inability to speak. The only difference, indeed, which I can perceive between the two affections is, that in day-mare the reason is

always unclouded—whereas in incubus it is *generally* more or less disturbed.

Dr. Mason Good, in his "Study of Medicine," takes notice of a case, recorded by Forestus, "that returned periodically every third day, like an intermittent fever. The patient was a girl, nine years of age, and at these times was suddenly attacked with great terror, a constriction of both the lower and upper belly, with urgent difficulty of breathing. Her eyes continued open, and were permanently continued to one spot; with her hands she forcibly grasped hold of things, that she might breathe the more easily. When spoken to, she returned no answer. In the meantime, the mind seemed to be collected; she was without sleep; sighed repeatedly; the abdomen was elevated, the thorax still violently contracted, and oppressed with laborious respiration and heavy panting: she was incapable of utterance."

During the intensely hot summer of 1825, I experienced an attack of this affection. Immediately after dining, I threw myself on my back upon a sofa, and, before I was aware, was seized with difficult respiration, extreme dread, and utter incapability of motion or speech. I could neither move nor cry, while the breath came from my chest in broken and suffocating paroxysms. During all this time, I was

perfectly awake; I saw the light glaring in at the windows in broad sultry streams; I felt the intense heat of the day pervading my frame; and heard distinctly the different noises in the street, and even the ticking of my own watch, which I had placed on the cushion beside me. I had, at the same time, the consciousness of flies buzzing around, and settling with annoying pertinacity upon my face. During the whole fit, judgment was never for a moment suspended. I felt assured that I laboured under incubus. I even endeavoured to reason myself out of the feeling of dread which filled my mind, and longed with insufferable ardour for some one to open the door, and dissolve the spell which bound me in its fetters. The fit did not continue above five minutes: by degrees I recovered the use of speech and motion; and as soon as they were so far restored as to enable me to call out and move my limbs, it wore insensibly away.

Upon the whole, I consider day-mare and night-mare identical. They proceed from the same causes, and must be treated in a similar manner.

CHAPTER XI.

SLEEP-WALKING.

Men's legs, if man may trust the common talk,
Are engines put in motion when men walk;
But when we cross our knees, and take a chair
Beside the fire, they 're not in motion there:
So this we learn by wisdom, art, and skill,
That legs are made to stir, or to sit still.
Yet sometimes I have heard that, when the head
In woollen cap lay snoring on the bed,
The legs, without the sanction of the brain,
Were fond to wander on the midnight plain,
Pursue, 'mid darkness, tasks of common day,
Yet come, as willed caprice, unharmed away.

ODOHERTY'S "*Somnambulatory Butcher.*"

THE following are the conditions of sleep-walking. 1. An active state of the memory, imagination, &c. 2. A complete or partial suspension of the judgment. 3. An active state of some, or the whole of the powers of volition. Along with these indispensable conditions is usually combined a state of activity in one or more organs of the senses.

In perfect sleep, as we have elsewhere stated, all the functions of the mind, all the muscles of voluntary motion, and all the organs of the senses are quiescent. In simple dreaming, part of the mental faculties are awake, and part of them asleep. Such also is the case with somnambulism, but with this addition, that both the muscles, as well as (in most cases) some one or other of the senses, continue awake. Sleep-walking, therefore, approaches more nearly to the waking state than any other modification of slumber —night-mare excepted.

It is the tendency of perfect sleep to throw all the organs of voluntary motion, and of the senses, into torpor: but sometimes one set of the muscles, or one organ, in consequence of a stream of sensorial power being directed to it, refuses to sympathize in this general quiescence, and remains in a state fit for action, while all its fellows are dormant. Thus, the eye may be open, and see whatever objects are presented to it, while the ear is insensible to the stimulus of ordinary sounds; or a particular series of muscles may be aroused, while another is in the insensibility of sleep; or even the whole muscular system may be awake, and possessed of all its customary powers. The affection may be still more complete, and make a still closer approximation to the waking state; for the whole of the voluntary powers and organs of the

senses, as well as perception, memory, imagination, &c. are sometimes in full activity, while the judgment alone is torpid; and sometimes not even torpid, but only partially obscured in its operations.

"If," observes that truly admirable writer, Dr. Mason Good, "the external organ of sense thus stimulated, be that of sight, the dreamer may perceive objects around him, and be able to distinguish them; and if the tenor of the dreaming ideas should as powerfully operate upon the muscles of locomotion, these also may be thrown into their accustomed state of action, and he may rise from his bed, and make his way to whatever place the drift of his dream may direct him, with perfect ease, and free from danger. He will see more or less distinctly, in proportion as the organ of sight is more or less awake: yet, from the increased exhaustion, and, of course, increased torpor of other organs, in consequence of an increased demand of sensorial power from the common stock, to supply the action of the sense and muscles immediately engaged, every other sense will probably be thrown into a deeper sleep or torpor than if the whole had been quiescent. Hence, the ears may not be roused even by a sound that might otherwise awake the sleeper. He may be insensible not only to a slight touch, but a severe shaking of the limbs; and may

even cough violently, without being recalled from his dream. Having accomplished the object of his visionary pursuit, he may safely return, even over the most dangerous precipices, for he sees them distinctly, to his bed; and the organ of sight being now quite exhausted, or there being no longer any occasion for its use, it may once more associate in the general inactivity, and the dream take a new turn, and consist of a new combination of images." *

It is unnecessary to detail the explanations which have been given of sleep-walking, as Dr. Good's seems by far the most probable that has ever appeared. Dr. Park is of opinion that "the physical cause of this singular affection appears to be an irregular distribution of blood in the sensorium, or some local congestion that impedes the uniform and simultaneous restoration of the corporeal and mental faculties."

It has been matter of surprise to many, that somnambulists frequently get into the most dangerous situations without experiencing terror. But the explanation of this ought not to be attended with

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* Good's "Study of Medicine," vol. iv. p. 175, ed. 3d.—To this work, by far the most profound and comprehensive ever contributed to medical literature, I am indebted for some valuable facts and reasonings.

any real difficulty; for we must reflect, that alarm cannot be felt unless we apprehend danger, and that the danger, however great it may be, cannot excite emotion of any kind, so long as we are ignorant of its existence. This is the case in which sleep-walkers, in a great majority of cases, stand. The reasoning faculties, which point out immediate or distant peril, are generally in a state of complete slumber: they, therefore, cannot perceive it when it exists, and are unable to produce corresponding emotions in the mind. And even if a sleep-walker should perceive danger, and avoid it, as is sometimes the case, his want of fear is to be imputed to a similar cause, *viz.* to the organ of the mind which gives rise to this emotion being dormant.

In this affection, the reasoning powers are, in most instances, entirely suspended; but that their suspension is occasionally only partial, seems evident, from the fact of danger being now and then studiously shunned if it lie in the person's way. It is difficult to conceive how such an act of prudence could be manifested without some glimpse of judgment being called into operation, unless we suppose the existence of an instinct similar to that which points out danger to some of the lower animals.

Somnambulists generally walk with their eyes open, but these organs are, nevertheless, often asleep, and

do not exercise their functions. This fact was well known to Shakspeare, as is apparent in the fearful instance of Lady Macbeth:

> "*Doctor.* You see her eyes are open.
> "*Gentleman.* Ay, but their sense is shut."

The following is a remarkable instance of this fact, and shows that though, during the period of the fit, at least, the power of vision was suspended, that of hearing was in full operation. It proves, also, that notwithstanding the activity of many of the mental powers, the impressions were of so transient a nature as not to leave upon memory the slightest recollection of any event having occurred.

Case.—"A female servant in the town of Chelmsford, surprised the family at four o'clock one morning, by walking down a flight of stairs in her sleep, and rapping at the bed-room door of her master, who inquired what she wanted? when, in her usual tone of voice, she requested some cotton, saying that she had torn her work, but hoped that her mistress would forgive her; at the same time bursting into tears. Her fellow-servant, with whom she had been conversing for some time, observed her get out of bed, and quickly followed her, but not before she had related the pitiful story. She then returned to her room, and a light having been procured, she

was found groping to find her cotton-box, from which she was offered an empty reel, but she refused it, and taking up the gown, she pointed to the two holes which she was anxious to mend. In order to quiet her, her fellow-servant threaded a needle with black cotton, which she angrily rejected, mentioning the colour, and adding that it was of no use. Another person went to her, when, perceiving a difference in the voice, she called out, 'That is a different voice, that is my mistress,' which was not the case—thus clearly showing, that in this instance she *did not see* the object before her, although her eyes were *wide open*. Upon inquiry as to what was the matter, she only said that she wanted some cotton, but that her fellow-servant had been to her master and mistress, making a fuss about it. It was now thought prudent that she should be allowed to remain quiet for some short time, and she was persuaded to lie down with her fellow-servant, until the usual hour of rising, thinking that she might then awake in her accustomed manner. This failing in effect, her mistress went up to her room, and, rather angrily, desired her to get up, and go to her work, as it was now six o'clock; this she refused, telling her mistress that if she did not please her, she might look out for another servant, at the same time saying, that she would not rise up at two o'clock, (pointing to the

window,) to injure her health for any one. For the sake of a joke, she was told to pack up her things, and start off immediately, but to this she made no reply. She rebuked her fellow-servant for not remaining longer in bed, and shortly after this became quiet. She was afterwards shaken violently, and awoke. She then rose, and seeing the cotton-box disturbed, demanded to know why it had been meddled with, not knowing that she alone was the cause of it. In her way down stairs she had to pass an obstruction, which she avoided, but her fellow-servant who followed after her, stumbled over it. In the course of the day, several questions were put to her in order to try her recollection, but the real fact, her walking, was not made known to her, and she is still quite unconscious of what has transpired." *

The next case is of a different description, and exhibits a dormant state of the sense of hearing, while sight appears throughout to have been in active operation.

Case.—" Last week, a young man named Johns, who works at Cardrew, near Redruth, being asleep in the sump-house of that mine, was observed by

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* Essex Herald.

two boys to rise and walk to the door, against which he leaned; shortly after, quitting that position, he walked to the engine-shaft, and safely descended to the depth of twenty fathoms, where he was found by his comrades soon after, sound asleep, with his back resting on the ladder. They called to him, to apprize him of the perilous situation in which he was, but he did not hear them, and they were obliged to shake him roughly till he awoke, when he appeared totally at a loss to account for his being so situated." *

In Lodge's "Historical Portraits," there is a likeness by Sir Peter Lely, of Lord Culpepper's brother, so famous as a dreamer. In 1686, he was indicted at the Old Bailey, for shooting one of the Guards, and his horse to boot. He pleaded somnambulism, and was acquitted on producing nearly fifty witnesses to prove the extraordinary things he did in his sleep.

Morrison, in his "Medicine no Mystery," speaks of a clergyman who used to get up in the night, light his candle, write sermons, correct them with interlineations, and retire to bed again; being all the time fast asleep.

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* West Briton.

The stories related of sleep-walkers are of so extraordinary a kind, that they would almost seem fictitious, were they not supported by the most incontrovertible evidence. The mind, indeed, is precisely in that state which fits it for mad adventures. The passion of fear, which controls all others—which inspires a man with a sense of peril, and points out what may be safely attempted, and what should be shunned—is suspended for a season; and the individual, under the blind impulse of unshackled will, performs feats at which the most stalwart knights of romance would have stood aghast. To walk on the brink of house-tops, to scale precipices, and descend to the bottom of frightful ravines, are common exploits to the somnambulist; and he performs them with a facility far beyond the power of any man who is completely awake. A story is told of a boy, who dreamed that he got out of bed, and ascended to the summit of an enormous rock, where he found an eagle's nest, which he brought away with him, and placed beneath his bed. Now, the whole of these events actually took place; and what he conceived, on awaking, to be a mere vision, was proved to have had an actual existence, by the nest being found in the precise spot where he imagined he had put it, and by the evidence of spectators who beheld his perilous adventure. The precipice which

he ascended, was of a nature which must have baffled the most expert mountaineers, and such as, at other times, he never could have scaled. In this instance, the individual was as nearly as possible, without actually being so, awake. All his bodily powers, and almost the whole of his mental ones, appear to have been in full activity. So far as the latter are concerned, we can only conceive a partial defect of the judgment to have existed, for that it was not altogether abolished, is pretty evident from the fact of his proceeding to work precisely as he would have done, had he, in his waking hours, seriously resolved to make such an attempt: the defect lay in making the attempt at all; and still more in getting out of bed to do so in the middle of the night.

There are then the greatest differences in the state of sleep-walkers; some hearing without seeing; others seeing without hearing; some possessing a state of consciousness almost approaching to the waking state; others being in a condition little removed from perfect sleep. On this account, while we may manage to hold a conversation with one person, another is altogether incapable of forming a single idea, or giving it utterance, even if formed. For the same reason, the first, guided by a certain portion of intellect, pursues with safety his wild perambulations; while the second, driven on by

the impulses of will, and his reasoning faculties locked up in utter stupor, staggers into danger of every kind.

Persons under the influence of this affection, have been able to execute not only many of the common offices of life, such as dressing, eating, drinking, &c., but even to accomplish what requires the exercise of the higher mental powers. Thus, some will perform on musical instruments, with a skill and taste not much inferior to what they would exhibit awake; some will take up a book and amuse themselves with reading; others procure the necessary apparatus for writing, and fill several pages with whatever is uppermost in their minds. After doing these things, they frequently return to bed; and awake either altogether unconscious of their previous labours, or, as in the case of the boy, with the impression that such circumstances were merely dreams. It is a singular, yet well authenticated fact, that in the disastrous retreat of Sir John Moore, many of the soldiers fell asleep, yet continued to march along with their comrades.

The facility with which somnambulists are awakened from the paroxysm, differs extremely in different cases. One man is aroused by being gently touched or called upon, by a flash of light, by stumbling in his peregrinations, or by setting his foot

in the water. Another remains so heavily asleep, that it is necessary to call loudly to him, to shake him with violence, and make use of other excitations equally powerful. In this condition, when the faculty of sight chances to be dormant, it is curious to look at his eyes. Sometimes they are shut; at other times wide open; and when the latter is the case, we will perceive that they are fixed and inexpressive, "without speculation," or energy, while the pupil, so long as their slumbering state continues, is contracted, as in the case of perfect sleep.

It is not always safe to arouse a sleep-walker; and many cases of the fatal effects thence arising, have been detailed by authors. Nor is it at all unlikely that a person, even of strong nerves, might be violently agitated by awaking in a situation so different from that in which he went to bed. Among other examples, that of a young lady, who was addicted to this affection, may be mentioned. Knowing her failing, her friends made a point of locking the door, and securing the window of her chamber in such a manner, that she could not possibly get out. One night these precautions were unfortunately overlooked; and, in a paroxysm of somnambulism, she walked into the garden behind the house. While there, she was recognised

by some of the family, who were warned by the noise she made on opening the door, and they followed and awoke her; but such was the effect produced upon her nervous system, that she almost instantly expired.

The remote causes of sleep-walking are so obscure, that it is seldom we are able to ascertain them. General irritability of frame, a nervous temperament, and bad digestion, will dispose to the affection. Being a modification of dreaming, those who are much troubled with the latter will consequently be most prone to its attacks. The causes, however, are, in a great majority of cases, so completely unknown, that any attempt to investigate them would be fruitless; and we are compelled to refer the complaint to some idiosyncracy of constitution beyond the reach of human knowledge. I know an elderly lady, who, under the impression that her house was attacked, got out of bed, dropped from the window, (fortunately a low one,) and was a considerable distance on her way to warn the police, when she was stopped, and conducted home by a night watchman. The consciousness of being in her night-dress, and without either shoes or stockings, never forsook her; and her vision and hearing were both in a state of perfect activity. Dreams, therefore, are occasionally the cause of somnambulism,

but why they are so in one case, and not in another, it is in vain to conjecture.

When a person is addicted to this affection, great care should be taken to have the door and windows of his sleeping apartment secured, so as to prevent the possibility of his egress, as he sometimes forces his way through the panes of glass: this should be put out of his power, by having the shutters closed, and bolted in such a way, that they cannot be opened without the aid of a key or screw, or some such instrument, which should never be left in the room where he sleeps, but carried away, while the door is secured on the outside: this will effectually protect him from injury. Some have recommended that a tub of water should be put by the bed-side, that, on getting out, he might slip into it, and be awakened by the cold; but this, from the suddenness of its operation, might be attended with bad consequences in very nervous and delicate subjects. Whenever it can be managed, it will be prudent for another person to sleep along with him in the same bed. In all cases, care should be taken not to arouse him suddenly. This ought to be done as gently as possible; and when he can be conducted to bed without being awakened at all, it will be still better. Should he be perceived in any dangerous situation, as on the house-top, or the brink of a pre-

cipice, the utmost caution is requisite, for, if we call loudly upon him, his dread, on recovering, at finding himself in such a predicament, may actually occasion him to fall, where, if he had been left to himself, he would have escaped without injury.

To prevent a recurrence of somnambulism, we must remove, if possible, the cause which gave rise to it. Thus, if it proceed from a disordered state of the stomach, or biliary system, we must have recourse to the various medicines used in such cases; and the individual should take abundance of exercise, avoid late hours, or too much study, and invigorate the system by every means in his power. Should the affection arise from plethora, he must be blooded, and live low; should hysteria produce it, then antispasmodics, such as valerian, ammonia, asafœtida, and opium may be necessary. In a word, whatever disease can be pointed out as directly or indirectly concerned in its production, requires to be obviated in the first instance, and its own departure will necessarily follow.

But, unfortunately, we can often refer sleep-walking to no complaint whatever. In this case, all that can be done is to carry the individual as safely as possible through the paroxysm, and prevent him from injury by the means we have mentioned. In many instances, the affection will wear spontaneously

away; in others, it will continue in spite of every remedy. I believe, in all cases, that the digestive organs should be particularly attended to, as by them, more than by any other cause, are the phenomena of sleep influenced in all their modifications.

CHAPTER XII.

SLEEP-TALKING.

There 's one did laugh in his sleep, and one cried " Murder ! "
That they did wake each other ; I stood and heard them :
But they did say their prayers, and addressed them
Again to sleep.

SHAKSPEARE.

THIS is merely a modification of somnambulism, and proceeds from similar causes, *viz.* a distribution of sensorial power to the organs of speech, by which means they do not sympathize in the general slumber, but remain in a state fit for being called into action by particular trains of ideas. If, for instance, we dream that we are talking to some one, and if these organs are endowed with their waking share of sensorial power, we are sure to speak. Again, the mere dream without a *waking* state of the organs, will never produce speech ; and we only suppose we are carrying on conversation, although, at the time, we are completely silent. To produce sleep-talking,

therefore, the mind, in some of its functions, must be awake, and the organs of speech must be so also.

The conversation in this state, is of such subjects as our thoughts are most immediately occupied with; and its consistency or incongruity depends upon that of the prevailing ideas—being sometimes perfectly rational and coherent; at other times, full of absurdity. The voice is seldom the same as in the waking state. This I would impute to the organs of hearing being mostly dormant, and consequently unable to guide the modulations of sound. The same fact is observable in very deaf persons, whose speech is usually harsh, unvaried, and monotonous. Sometimes the faculties are so far awake, that we can manage to carry on a conversation with the individual; and extract from him the most hidden secrets of his soul. By such means, things have been detected, which would otherwise have remained in perpetual obscurity. By a little address in this way, a gentleman lately detected the infidelity of his wife, from some expressions which escaped her while asleep, and succeeded in finding out that she had a meeting arranged with her paramour for the following day. Lord Byron describes a similar scene in his "Parasina:"

" And Hugo is gone to his lonely bed,
To covet there another's bride;
But she must lay her conscious head
A husband's trusting heart beside.
But fevered in her sleep she seems,
And red her cheek with troubled dreams,
And *mutters she in her unrest*
A name she dare not breathe by day,
And clasps her lord unto the breast
Which pants for one away."

Persons have been known, who delivered sermons and prayers during sleep; among others, an American lady is spoken of, who did so for many years. The same was the case with Richard Haycock, Professor of Medicine in Oxford: he would give out a text in his sleep, and deliver a good sermon upon it; and all the pinching and pulling of his friends could not prevent him. Somnambulists frequently talk while on their expeditions. Indeed, sleep-talking is one of the most common accompaniments of this affection; and bears so close a resemblance to it in most of its circumstances, that it may be regarded as merely a modification of somnambulism.

The following singular case of sleep-talking, combined with somnambulism, will prove interesting to the reader.

Case.—" A very ingenious and elegant young lady, with light eyes and hair, about the age of seventeen, in other respects well, was suddenly seized with

this very wonderful malady. The disease began with violent convulsions of almost every muscle of her body, with great, but vain efforts to vomit, and the most violent hiccoughs that can be conceived: these were succeeded in about an hour with a fixed spasm; in which, one hand was applied to her head, and the other to support it: in about half an hour these ceased, and the reverie began suddenly, and was at first manifest by the look of her eyes and countenance, which seemed to express attention. Then she conversed aloud with imaginary persons, with her eyes open, and could not, for about an hour, be brought to attend to the stimulus of external objects by any kind of violence which it was possible to use: these symptoms returned in this order every day for five or six weeks.

" These conversations were quite consistent, and we could understand what she supposed her imaginary companions to answer, by the continuation of her part of the discourse. Sometimes she was angry, at other times showed much wit and vivacity, but was most frequently inclined to melancholy. In these reveries, she sometimes sung over some music with accuracy, and repeated whole passages from the English Poets. In repeating some lines from Mr. Pope's works, she had forgot one

word, and began again, endeavouring to recollect it; when she came to the forgotten word, it was shouted aloud in her ears, and this repeatedly, to no purpose; but by many trials she at length regained it herself.

" Those paroxysms were terminated with the appearance of inexpressible surprise and great fear, from which she was some minutes in recovering herself, calling on her sister with great agitation, and very frequently underwent a repetition of convulsions, apparently from the pain of fear.

" After having thus returned for about an hour a day, for two or three weeks, the reveries seemed to become less complete, and some of the circumstances varied; so that she could walk about the room in them, without running against any of the furniture; though these motions were at first very unsteady and tottering. And, afterwards, she once drank a dish of tea, when the whole apparatus of the tea-table was set before her; and expressed some suspicion that a medicine was put into it, and once seemed to smell at a tuberose, which was in flower in her chamber, and deliberated aloud about breaking it from the stem, saying, ' It would make her sister so charmingly angry.' At another time, in her melancholy moments, she heard the bell, and then taking off one of her shoes as she sat upon the bed, ' I love

the colour black,' says she; 'a little wider and a little longer, and even this might make me a coffin!' Yet it is evident she was not sensible at this time, any more than formerly, of seeing or hearing any person about her; indeed, when great light was thrown upon her by opening the shutters of the window, she seemed less melancholy; and when I have forcibly held her hands, or covered her eyes, she appeared to grow impatient, and would say, she could not tell what to do, for she could neither see nor move. In all these circumstances, her pulse continued unaffected, as in health. And when the paroxysm was over, she could never recollect a single idea of what had passed." *

Equally extraordinary is the following instance of combined sleep-talking and somnambulism.

Case.—" A remarkable instance of this affection of the nerves occurred on Sunday evening last, 5th October, to a lad named George Davies, sixteen years and a half old, in the service of Mr. Hewson, butcher, of Bridge-Road, Lambeth. At about twenty minutes after nine o'clock, the lad bent forward in his chair, and rested his forehead on his hands, and in ten minutes started up, went for his whip, put on

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* Darwin's " Zoonomia."

his one spur, and went thence to the stable; not finding his own saddle in the proper place, he returned to the house and asked for it. Being asked what he wanted with it, he replied, to go his rounds. He returned to the stable, got on the horse without the saddle, and was proceeding to leave the stable: it was with much difficulty and force that Mr. Hewson, junior, assisted by the other lad, could remove him from the horse; his strength was great, and it was with difficulty he was brought in doors. Mr. Hewson, senior, coming home at this time, sent for Mr. Benjamin Ridge, an eminent practitioner in Bridge-Road, who stood by him for a quarter of an hour, during which time the lad considered himself as stopped at the turnpike-gate, and took sixpence out of his pocket to be changed; and holding out his hand for the change, the sixpence was returned to him. He immediately observed, 'None of your nonsense—that is the sixpence again; give me my change;' when twopence halfpenny was given to him, he counted it over, and said, 'None of your gammon; that is not right; I want a penny more;' making the threepence halfpenny, which was his proper change. He then said, 'Give me my castor,' (meaning his hat,) which slang term he had been in the habit of using, and then began to whip and spur to get his horse on. His pulse at this time was 136,

full and hard; no change of countenance could be observed, nor any spasmodic affection of the muscles, the eyes remaining close the whole of the time. His coat was taken off his arm, shirt-sleeves tucked up, and Mr. Ridge bled him to 32 ounces; no alteration had taken place in him during the first part of the time the blood was flowing; at about 24 ounces, the pulse began to decrease; and when the full quantity named above had been taken, it was at 80—a slight perspiration on the forehead. During the time of bleeding, Mr. Hewson related a circumstance of a Mr. Harris, optician, in Holborn, whose son, some years since, walked out on the parapet of the house in his sleep. The boy joined the conversation, and observed, 'He lived at the corner of Brownlow-Street.' After the arm was tied up, he unlaced one boot, and said he would go to bed: in three minutes from this time, he awoke, got up, and asked what was the matter, (having then been one hour in the trance,) not having the slightest recollection of anything that had passed, and wondered at his arm being tied up, and at the blood, &c. A strong aperient medicine was then administered; he went to bed, slept well, and the next day appeared perfectly well, excepting debility from the bleeding, and operation of the medicine, and has no recollection whatever of what had taken place. None of his

family or himself were ever affected in this way before." *

All that can be done for the cure of sleep-talking, is to remove such causes as we may suppose to have given rise to it. It is, however, in most cases, of such a trivial nature, as not to require any treatment whatever; and when it proceeds from idiosyncracy, or becomes habitual, I believe no means which can be adopted will be of much avail. The state of the digestive apparatus should invariably be attended to, and if disordered, they must be put to rights by suitable medicines. And should the affection proceed, or be supposed to proceed, from hypochondria, hysteria, or the prevalence of any strong mental emotion, these states must be treated according to general principles.

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* "Lancet," vol. i.

CHAPTER XIII.

SLEEPLESSNESS.

A flock of sheep that leisurely pass by,
One after one; the sound of rain, and bees
Murmuring; the fall of rivers, winds, and seas,
Smooth fields, white sheets of water, and pure sky;
By turns have all been thought of; yet I lie
Sleepless; and soon the small birds' melodies
Must hear, first uttered from my orchard trees;
And the first cuckoo's melancholy cry.
Even thus last night, and two nights more, I lay,
And could not win thee, sleep, by any stealth.

WORDSWORTH.

SLEEP takes place as soon as the sensorial power which animates the mind, the volition, and the organ of the senses, is exhausted; and this exhaustion, under common circumstances, occurs at our ordinary hour of going to rest, or even sooner, if any thing, such as heat, monotony, fatigue, or food, happen to diminish it. But the sensorial power may be increased by various means, as in cases of physical

suffering, or excited imagination, and, consequently, is not expended at the usual time. In this case, the person remains awake, and continues so till the period of its exhaustion, which may not happen for several hours after he lies down, or even not at all, during the whole of that night. Now, whatever increases this power, whether it be balls, assemblies, concerts, grief, joy, or bodily pain, is prejudicial to repose. By them, the mind is exalted to a pitch of unnatural action, from which it is necessary it should descend before it can roll into the calm channel of sleep.

Whatever stimulates the external senses, however slightly, may prevent sleep. Thus, the ticking of a clock has this effect with very sensitive pēople, although with others it has the opposite effect; and a candle burning in the chamber is attended with the same result. Even when the eyes are shut, this may take place, for the eye-lids are sufficiently transparent to convey the rays of light to the retina. For the same reason, the light of day peering in at the window, may awake us from slumber, without the intervention of any other circumstance. It is said that Napoleon could never sleep if exposed to the influence of light, although, in other circumstances, slumber appeared at his bidding with surprising readiness.

A constitutional restlessness is sometimes brought on by habit. By habitually neglecting to solicit sleep when we lie down, we may bring ourselves into such a state of irritability, that we can hardly sleep at all. Chronic wakefulness, originating from any mental or bodily affection, sometimes degenerates into a habit, in which the sufferer will remain for weeks, months, or even years, if authors are to be believed, awake. In the disease called delirium tremens, wakefulness is a constant symptom, and frequently continues for many days at a time. It is also an attendant upon all disorders attended with acute suffering, especially when the brain is affected, either directly, as in the case of phrenitis, or indirectly, in consequence of fevers. Maniacs, from the excited state of their sensorium, are remarkably subject to want of sleep; and this symptom is often so obstinate as to resist the most powerful remedies we can venture to prescribe.

Certain stimulating agents, such as tea or coffee, taken shortly before going to bed, have often the effect of preventing sleep. I would impute this to their irritative properties, which, by supplying the nervous system with fresh sensorial power, enable it to carry on uninterruptedly all its functions longer than it would otherwise do, and consequently prevent it from relapsing into slumber at the usual period.

Any uneasy bodily feeling has the same effect—both preventing the accession of sleep, and arousing us from it when it has fairly taken place. Thus, while moderate fatigue induces slumber, excessive fatigue, owing to the pain and irritation it necessarily occasions, drives it away. Sickness, cold, heat, pregnancy, the ordinary calls of nature, a disagreeable bed, the want of an accustomed supper, too heavy a supper, or uneasiness of any kind, have the same result. Cold is most apt to induce sleeplessness, when it is partial, and only affects one organ at a time, especially the feet, for, when general and very intense, it sometimes has the opposite operation, and gives rise to drowsiness. Certain diseases, such as hemicrania, tic doloureux, &c., have actually kept the person awake for three successive months; and all painful affections prevent sleep in a greater or lesser degree. But the most violent tortures cannot banish sleep altogether, however much they may retard it. Sooner or later, the fatigue which a want of sleep occasions, prevails, and it ultimately ensues.

Sleeplessness is sometimes produced by a sense of burning heat in the soles of the feet and palms of the hands, to which certain individuals are subject some time after lying down. This seems to proceed from a want of perspiration in those parts, owing, in general, to a bad state of the digestion.

Mental emotions, such as anger, joy, sorrow, love, or deep study, are unfavourable to repose. If a man, as soon as he lays his head upon the pillow, can manage to get rid of his ideas, he is morally certain to fall asleep. There are many individuals so happily constituted, that they can do so without any effort: so far from being tortured by intrusive thoughts, their ideas take to flight without ceremony, and do not visit them till they are required on awaking. It is very different with those whom an excess of care, imagination, or study overwhelms with its burden. The sorrowful man, above all others, has the most need of sleep, but, far from breathing its benignant influence over him, it flies away, and leaves him to the communionship of his own sad thoughts.

> "*His* slumbers—if *he* slumber—are not sleep,
> But a continuance of enduring thought."

It is the same with the man of vivid imagination. His fancy, instead of being shrouded in the silence of sleep, becomes more full of imagery than ever. Thoughts, in a thousand fantastic forms, pass through the mind, whose excessive activity spurns at repose, and mocks all the endeavours of its possessor to reduce it to quiescence. Great joy will often scare away sleep for several weeks suc-

cessively; but, in this respect, it is far inferior to grief, a fixed attack of which has been known to keep the sufferer awake for many months. Those who meditate much, seldom sleep well in the early part of the night: they lie awake perhaps for two or three hours after going to bed, and do not fall into slumber till towards morning. Persons of this description often lie long in bed, and are reputed lazy by early risers, although, it is probable, they actually sleep less than these early risers themselves. Long-continued study is highly prejudicial to sleep. Boerhaave mentions, that, on one occasion, owing to this circumstance, he did not close his eyes for six weeks.

Nothing is so hurtful both to the mind and body as want of sleep. Deprived of the necessary portion, the person gets wan, emaciated, and listless, and very soon falls into bad health. The spirit becomes entirely broken, and the fire of even the most ardent dispositions is quenched. Nor is this law peculiar to the human race, for it operates with similar power upon the lower animals, and deprives them of much of their natural ferocity. An illustration of this fact is afforded in the taming of wild elephants. These animals, when first caught, are studiously prevented from sleeping; in consequence of which, they, in a few days become comparatively mild

and harmless. Restlessness, when long protracted, may terminate in delirium, or confirmed madness; and in many diseases, it is almost the only thing we have to struggle against. By it alone, all the existing bad symptoms are often occasioned, and as soon as we can succeed in overcoming it, every thing disagreeable and dangerous frequently wears away, and the person is restored to health.

In restlessness, the perspiration and the secretion of the kidneys are usually much increased: there is also an accession of heat of the system, and a general feverish tendency, unless the want of sleep should proceed from cold.

With regard to the treatment of sleeplessness, a very few words will suffice: in fact, upon this head little more can be said, than a recommendation to obviate the causes from whence it proceeds, and the effects naturally disappear. I may mention, however, that where there is no specific disease, either of body or mind, to which the want of sleep can be imputed, the person should keep himself in as cheerful a mood as possible—that he should, if his strength permits, rise early, take such exercise as to fatigue himself moderately; and if all these means fail, that he ought to make use of opium. In all cases of restlessness, indeed, this medicine must be ultimately had recourse to, if the affection resists every other

remedy, and continues so long as to endanger health. That singular preparation of opium called morphine, has latterly been a good deal used, and with excellent effect, for the same purpose. When neither opium nor its preparations agree with the constitution, it becomes necessary to employ other narcotics, especially hyosciamus or hop. It is impossible, in this case, to detail the dose of these remedies, for this depends upon many circumstances, such as the age, constitution, sex, &c., of the patient; and in administering them, these things will always require to be kept in mind. A pillow of hops sometimes succeeds in inducing sleep, when other means fail. Such was the case with his late majesty, George III., who, by this contrivance, was relieved from that protracted wakefulness under which he laboured for so long a time. But in giving medicines to produce sleep, great attention must be paid to the disease which occasions the restlessness, for, in phrenitis, high fever, and some other disorders, it would be most injurious to administer anodynes of any kind. In such cases, the restlessness is merely a symptom of the general disease, and its removal will depend upon that of the latter. When, however, the acute symptoms have been overcome, and nothing but chronic wakefulness, the result of debility, remains behind, it then becomes necessary to have recourse

to opium, or such other means as may be considered applicable to the particular case. Studious men ought to avoid late reading; and, on going to bed, endeavour to abstract their minds from all intrusive ideas. They should try to circumscribe their thoughts within the narrowest possible circle, and prevent them from becoming rambling or excursive. I have often coaxed myself asleep, by internally repeating half a dozen of times any well known rhyme. While doing so, the ideas must be strictly directed to this particular theme, and prevented from wandering; for sometimes, during the process of repetition, the mind takes a strange turn, and performs two offices at the same time, being directed to the rhyme on one hand, and to something else on the other; and it will be found that the hold it has of the former, is always much weaker than of the latter. The great secret is, by a strong effort of the will to compel it to depart from the favourite train of thought into which it has run, and address itself solely to the verbal repetition of what is substituted in its place. If this is persevered in, it will generally be found to succeed; and I would recommend all those who are prevented from sleeping, in consequence of too active a flow of ideas, to try the experiment. As has been already remarked, the more the mind is brought to turn upon a single impression,

the more closely it is made to approach to the state of sleep, which is the total absence of all impressions.

In some cases of restlessness, sleep may be procured by the person getting up, and walking for a few minutes about the room. It is not easy to explain on what principle this acts, but it is certain, that by such means sleep sometimes follows, where previously it had been solicited in vain. It is a common practice with some people to read themselves into slumber, but dangerous accidents have sometimes arisen from this habit, in consequence of the lighted candle setting fire to the curtains of the bed. A safer and more effectual way is to get another person to read; in which case, sleep will very generally take place, especially if the subject in question is not one of much interest, and read in a dry, monotonous manner. When sleeplessness proceeds from the heat of the weather, the person should lie very lightly covered, and let the air circulate freely through his room. A cold bath taken shortly before going to bed, or sponging the body with cold water, will, by reducing the temperature, often insure a comfortable night's rest in the hot season of the year. When it arises from heat in the soles or palms, these parts should be bathed with cold vinegar and water, both before going to bed, and during the

existence of the heat; which usually occurs two or three hours after lying down. Attention must also be paid to the stomach and bowels, as this species of sleeplessness generally proceeds from a disordered state of these organs.

An easy mind, a good digestion, and plenty of exercise in the open air, are the grand conducives to sound sleep;—and, accordingly, every man whose repose is indifferent, should endeavour to make them his own as soon as possible. Should restlessness proceed from cold, heat, hunger, pain, sorrow, &c. these must be removed, and it, as one of their consequences, will disappear also. When want of sleep becomes habitual, the utmost care ought to be taken to overcome the habit, by the removal of every thing that has a tendency to cherish it. Repose is so necessary to health and existence itself, that any undue deficiency is sure to be attended with the worst consequences; and under no circumstances can a certain portion be dispensed with.

CHAPTER XIV.

SLEEP FROM COLD.

> ..... On every nerve
> The deadly winter seizes; shuts up sense;
> And o'er his inmost vitals creeping cold,
> Lays him along the snows.
>
> THOMSON.

THIS kind of sleep is so peculiar, that it requires to be considered separately. The power of cold in inducing slumber, is not confined to man, but pervades a very extensive class of animals. The hybernation, or winter torpitude of the brown and Polar bear, is produced by this cause. Those animals sleep for months at a time; and do not awake from their apathy till revived by the genial temperature of spring. The same is the case with the hedgehog, the badger, and several species of the mouse and rat tribes, such as the dormouse and marmot: as also with the land-tortoise, the frog, and almost all the individuals of the lizard, insect, and ser-

pent tribes. Fishes are often found imbedded in the ice, and, though in a state of apparent death, become at once lively and animated on being exposed to heat. "The fish froze," says Captain Franklin, "as fast as they were taken out of the nets, and in a short time became a solid mass of ice, and by a blow or two of the hatchet were easily split open, when the intestines might be removed in one lump. If in this completely frozen state they were thawed before the fire, they recovered their animation." Sheep sometimes remain in a state of torpitude for weeks, buried beneath wreaths of snow. Swallows are occasionally in the same state, being found torpid and insensible in the hollows of trees, and among the ruins of old houses, during the winter season; but with birds in general, this rarely happens, owing, probably, to the temperature of their blood being higher than that of other animals, and thereby better enabling them to resist the cold. Almost all insects sleep in winter. This is particularly the case with the crysalis, and such grubs as cannot at that season procure their food. In hybernating animals, it is impossible to trace any peculiarity of structure which disposes them to hybernate, and enables life to be sustained during that period. So far the subject is involved in deep obscurity. According to Dr. Edwards, the tempera-

ture of such animals sinks considerably during sleep, even in summer.

Want of moisture produces torpor in some animals. This is the case with the garden snail, which revives if a little water is thrown on it. According to Spallanzani, animalculi have been revived by moisture, after a torpor of twenty-seven years.

The power of intense cold in producing sleep, is very great in the human subject, and nothing in the winter season is more common than to find people lying dead in fields and on the highways from such a cause. An overpowering drowsiness steals upon them, and if they yield to its influence, death is almost inevitable. This is particularly the case in snow-storms, where, from the hidden nature of the roads, it is often impossible to get a place of shelter.

This state of torpor, with the exception perhaps of catalepsy, is the most perfect sleep that can be imagined: it approaches almost to death in its apparent annihilation of the animal functions. Digestion is at an end, and the secretions and excretions suspended: nothing seems to go on but circulation, respiration, and absorption. The two former are extremely languid, but the latter tolerably vigorous, if we may judge from the quantity of fat which the amimal loses during its torpid state. The bear, for example, on going to its wintry rest, is remarkably

corpulent; on awaking from it, quite emaciated; and, inspired by the pangs of hunger, it sallies forth in this condition with redoubled fury upon its prey. Life is sustained by the absorption of this fat, which for four months serves the animal as provision.

Some writers, and Buffon among the rest, deny that such a state of torpor, as we have here described, can be looked upon as sleep. This is a question into which it is not necessary at present to enter. All I contend for, is, that the state of the mind is precisely the same here as in ordinary sleep—that in both cases the organs of the senses and of volition are equally inert; and that though the conditions of the secretive and circulating systems are different, so many circumstances are nevertheless identical, that we become justified in considering the one in a work which professes to treat of the other.

Case of Dr. Solander.—In Captain Cook's First Voyage, a memorable instance is given of the power of intense cold in producing sleep. It occurred in the island of Terra-del-Fuego. Dr. Solander, Mr. Banks, and several other gentlemen had ascended the mountains of that frigid climate, for the purpose of botanizing and exploring the country. "Dr. Solander, who had more than once crossed the mountains which divide Sweden from Norway, well knew that extreme cold, especially when joined with fatigue, produces a

torpor and sleepiness that are almost irresistible. He therefore conjured the company to keep moving, whatever pain it might cost them, and whatever relief they might be promised by an inclination to rest. ‘ Whoever sits down,’ said he, ‘ will sleep, and whoever sleeps, will wake no more.’ Thus at once admonished and alarmed, they set forward, but while they were still upon the naked rock, and before they had got among the bushes, the cold became suddenly so intense as to produce the effects that had been most dreaded. Dr. Solander himself was the first who felt the inclination, against which he had warned others, irresistible; and insisted upon being suffered to lie down. Mr. Banks entreated and remonstrated in vain; down he lay upon the ground, although it was covered with snow, and it was with great difficulty that his friend kept him from sleeping. Richmond also, one of the black servants, began to linger, having suffered from the cold in the same manner as the Doctor. Mr. Banks, therefore, sent five of the company, among whom was Mr. Buchan, forward, to get a fire ready at the first convenient place they could find; and himself, with four others, remained with the Doctor and Richmond, whom, partly by persuasion and entreaty, and partly by force, they brought on; but when they had got through the greatest part of the birch and swamp, they both declared

they could go no farther. Mr. Banks again had recourse to entreaty and expostulation, but they produced no effect. When Richmond was told that if he did not go on, he would in a short time be frozen to death, he answered, that he desired nothing but to lie down and die. The Doctor did not so explicitly renounce his life: he said he was willing to go on, but that he must first take some sleep, though he had before told the company that to sleep was to perish. Mr. Banks and the rest found it impossible to carry them; and there being no remedy, they were both suffered to sit down, being partly supported by the bushes; and in a few minutes they fell into a profound sleep. Soon after, some of the people who had been sent forward, returned, with the welcome news that a fire was kindled about a quarter of a mile farther on the way. Mr. Banks then endeavoured to awake Dr. Solander, and happily succeeded. But though he had not slept five minutes, he had almost lost the use of his limbs, and the muscles were so shrunk, that the shoes fell from his feet; he consented to go forward with such assistance as could be given him, but no attempts to relieve poor Richmond were successful."

It is hardly necessary to say any thing about the treatment of such cases. If a person is found in a

state of torpor from cold, common sense points out the necessity of bringing him within the influence of warmth. When, however, the limbs, &c., are frost-bitten, the heat must be applied with great caution, lest reaction, ensuing in such debilitated parts, might induce gangrene. Brisk friction with a cold towel, or even with snow, as is the custom in Russia, should, in the first instance, be had recourse to. When by this means the circulation is restored, and motion and feeling communicated to the parts, the heat may be gradually increased, and the person wrapped up in blankets, and allowed some stimulus internally, such as a little negus, or spirits and water. This practice should be adopted from the very first, when the parts are not frost-bitten; but when such is the case, the stimulating system requires to be used with great caution, and we must proceed carefully, proportioning the stimulus to the particular circumstances of the case.

If a person is unfortunate enough to be overtaken in a snow storm, and has no immediate prospect of extrication, he should, if the cold is very great, and the snow deep, sink his body as much as possible in the latter, leaving only room for respiration. By this plan, the heat of the body is much better preserved than when exposed to the influence of the atmosphere, and life has consequently a greater chance

of being saved; for the temperature of the snow is not lower than that of the surrounding air, while its power of absorbing caloric is much less. It is on this principle that sheep live for such a length of time enveloped in snow wreaths, while, had they been openly exposed for a much less period to a similar degree of cold, death would inevitably have ensued.

One of the best methods to prevent the limbs from being frost-bitten in intensely cold weather, is to keep them continually in motion. Such was the method recommended by Xenophon to the Greek troops, many of whom lost their toes from cold in the memorable "Retreat of the Ten Thousand," conducted by that distinguished soldier and historian.

CHAPTER XV.

WAKING DREAMS.

> ..... What ails her? She sees
> A mountain ascending, a vision of trees;
> Bright volumes of vapour through Lothbury glide,
> And a river flows on through the vale of Cheapside.
> Green pastures she views in the midst of the dale,
> Down which she so often has tripped with her pail;
> And a single small cottage, a nest like a dove's,
> The only one dwelling on earth that she loves.
>
> *Lyrical Ballads.*

Those gifted with much imagination, are most addicted to waking dreams. There are some men whose minds are so practical, and so thoroughly prosaic, that they seldom get beyond the boundaries of absolute reality: others are so ideal and excursive, that they have a perpetual tendency to transcend the limits of absolute truth—to leave this "visible diurnal sphere" behind; and, on the pinions of fancy, soar away into the regions of poetry and

romance. Waking dreams are merely the efforts of unbridled imagination. This faculty, when exercised under common circumstances, is kept in strict subordination to reason, which guides and restrains it in its flights; and never for a moment permits us to suppose, that the fictions it calls forth are realities. But when the sway of the reasoning faculty is shaken off—when the spirit mounts upwards, "unfettered and alone," and we forget that the sights revealed to it are merely illusive visions, then, and then only, are we assailed by waking dreams.

These curious states of mind may occur at any time, but the most common periods of their accession are, shortly after we lie down, and in the morning, shortly before getting up: they are, in fact, a species of castle-building. Men of vivid, sanguine, imaginative temperaments, have dreams of this kind almost every morning and night. Instead of submitting to the sceptre of sleep, they amuse themselves with creating a thousand visionary scenes. Though all the while broad awake, their judgment does not exercise the slightest sway over them: on the contrary, its functions are suspended, and fancy becomes "lord of the ascendant." The train of ideas which fill the mind at this time, depend much upon the age, situation, and character of the indivi-

dual. If he pine ardently after wealth, his mind is probably filled with visions of grandeur and opulence; and the hallucination is often so great, that he supposes these things to be in his actual possession. If he be young and unmarried, he perhaps conjures up the form of some lovely female, whom he invests with the beauty of an angel; and love, marriage, children, and all the delights of the matrimonial state, seen in perspective through the deep vista of many coming years, are the result. Whatever emotion prevails, has a character of extravagance: we see every thing through the serene atmosphere of imagination, and imbue the most trite circumstances with poetical colouring. The aspect, in short, which things assume, bears a strong resemblance to that impressed upon them by ordinary dreams. They are equally full of pathos and of beauty; and only differ in this, that, though verging continually on the limits of exaggeration, they seldom transcend possibility.

CHAPTER XVI.

REVERIE.

> A pleasing land of drowsyhead it was,
> Of dreams that wave before the half-shut eye;
> And of gay castles in the clouds, that pass
> For ever flushing round a summer sky.
>
> THOMSON.

A STATE of mind somewhat analogous to that which prevails in dreaming, also takes place during reverie. There is the same want of balance in the faculties, which are almost equally ill regulated, and disposed to indulge in similar extravagancies. Reverie proceeds from the inability of the mind to direct itself strongly to any single point. There is a defect in the *attention*, which, instead of being fixed to one, wanders over a thousand subjects, and even on these is feebly and ineffectively directed. We sometimes see this while reading, or, rather, while attempting to read. We get over page after page, but the ideas

take no hold whatever upon us: we are, in truth, ignorant of what we peruse, and the mind is either an absolute blank, or vaguely addressed to something else. This feeling every person must have occasionally noticed, in taking out his watch, looking at it, and replacing it, without knowing what the hour was. In like manner, he may hear what is said to him, without attaching any meaning to the words, which strike the ear, yet communicate no idea to the sensorium—while he continues to pursue a train of cogitations widely different. That kind of reverie, in which the mind is divested of all ideas, and approximates closely to the state of sleep, I have sometimes experienced while gazing long and intently upon a river. The thoughts seem to glide away one by one, upon the surface of the stream, till the mind is emptied of them altogether—in other words, till the thinking principle of the brain is wholly stripped of its sensorial power. In this state, we still see the glassy volume of the water moving past us, and hear its murmur, but lose all power of reflecting upon these or any other subjects; and either fall asleep, or are aroused by some spontaneous reaction of the mind, or by some appeal to the senses, sufficiently strong to startle us from our reverie.

Reverie is most apt to ensue in the midst of perfect silence; hence, in walking alone in the country,

where there is no sound to distract our meditations, we frequently get into this state. It is also apt to take place while we are seated, without companions, or books, or amusement of any kind, by the hearth, on a winter evening, especially when the fire is beginning to burn out, when the candles are becoming faint for want of topping, and a dim religious light, like that filling a hermit's cell from his solitary lamp, is diffused over the apartment. This is the atmosphere most favourable for reverie, day-dreams, and all kinds of brown-study, abstraction, ennui, and hypochondria.

CHAPTER XVII.

ABSTRACTION.

Alone thou need'st not be, though all around
Thy dreaming soul a mountainous region lie
Spread like a sea that heaves without a sound,
Chained in tumultuous silence 'mid the sky.
Cloud-like ascends before their inward eye
The wreathed smoke from many a palm-tree grove,
'Mid the still desert mounting silently,
Straight up to heaven! and as it fades above,
Looks like some guardian power that eyes the earth with love.

PROFESSOR WILSON.

ABSTRACTION, or absence of mind, has been confounded with reverie, but it is, in reality, a different intellectual operation; for, as in the latter a difficulty is experienced in making the mind bear strongly upon any one point, in the former its whole energies are concentrated towards a single focus, and every other circumstance is, for the time, utterly forgotten: such was the case in the memorable instances of Newton and Archimedes, already alluded to. Some

men are naturally very absent; others acquire this habit from particular studies, such as mathematics, algebra, and other sciences requiring much calculation. Indeed, all studies which demand deep thinking, are apt to induce absence, in consequence of the sensorial power being drained from the general circumference of the mind, and directed strongly to a certain point. This draining, while it invigorates the particular faculty towards which the sensorial energy turns, leaves the others in an exhausted state, and incapacitates them from performing their proper functions: hence, persons subject to abstraction, are apt to commit a thousand ludicrous errors; they are perpetually blundering—committing a multitude of petty, yet harmless, offences against established rules, and getting for ever into scrapes and absurd positions. Nothing is more common than for an absent man to take the hat of another person instead of his own, to give away a guinea for a shilling, to mistake his lodgings, forget invitations, and so forth. When the fit of abstraction is very strong, he neither hears what is said to him, nor sees what is passing around. In some cases, he requires to be shaken before he will attend to any event; and it is often difficult to make him comprehend even the simplest proposition. Abstraction, therefore, bears an analogy to dreaming. The

great difference between the two states lies in the mode in which the sensorial power is distributed. In dreams, it is dormant, except so far as the portion of it connected with the particular faculties which are awake, is concerned. In absence, no part is dormant; the whole is in operation; but, instead of being diffused over the entire surface, it is solely directed towards one division of the mind, and, consequently, all the mental faculties, saving the one actually in operation, are destitute of their sensorial power. In this state they remain, till, the abstraction being broken, the said power is duly restored to each faculty, and the equilibrium restored.

Hogarth, the illustrious painter, affords a striking instance of the effects of mental absence. Having got a new carriage, he went in it to the Mansion-House, for the purpose of paying the Lord Mayor a visit. On leaving the house, he went out by a different door from that by which he entered, and found that it rained hard. Notwithstanding this, he walked homewards, and reached his own dwelling, drenched to the skin. His wife seeing him in this state, asked him how it had happened, and what had become of his carriage, that he had not come home in it. The truth was, that he had utterly forgotten the circumstance of having gone in a carriage, or having one at all.

The instances of abstraction are so numerous, that a volume might easily be filled with them. The following, from the pleasant style in which it is told, will amuse the reader.

Case.—"It is a case of one of the most profound and clear-headed philosophical thinkers, and one of the most amiable of men, becoming so completely absorbed in his own reflections, as to lose the perception of external things, and almost that of his own identity and existence. There are few that have paid any attention to the finance of this country, but must have heard of Dr. Robert Hamilton's 'Essay on the National Debt,' which fell upon the Houses of Parliament like a bombshell, or, rather, which rose and illuminated their darkness like an orient sun. There are other writings of his in which one knows not which most to admire—the profound and accurate science, the beautiful arrangement, or the clear expression. Yet, in public, the man was a shadow; pulled off his hat to his own wife in the streets, and apologised for not having the pleasure of her acquaintance; went to his classes in the college on the dark mornings, with one of her white stockings on the one leg, and one of his own black ones on the other; often spent the whole time of the meeting in moving from the table the hats of the students, which they as constantly

returned; sometimes invited them to call on him, and then fined them for coming to insult him. He would run against a cow in the road, turn round, beg her pardon, 'Madam,' and hope she was not hurt. At other times, he would run against posts, and chide them for not getting out of his way; and yet his conversation at the same time, if any body happened to be with him, was perfect logic and perfect music. Were it not that there may be a little poetic license in Aberdeen story-telling, a volume might be filled with anecdotes of this amiable and excellent man, all tending to prove how wide the distinction is between first-rate thought and that merely animal use of the organs of sense which prevents ungifted mortals from walking into wells. The fish market at Aberdeen, if still where it used to be, is near the Dee, and has a stream passing through it that falls into that river. The fishwomen expose their wares in large baskets. The Doctor one day marched into that place, where his attention was attracted by a curiously figured stone in a stack of chimneys. He advanced towards it, till he was interrupted by one of the benches, from which, however, he tumbled one of the baskets into the stream, which was bearing the fish to their native element. The visage of the lady was instantly in lightning, and her voice in thunder, but the

object of her wrath was deaf to the loudest sounds, and blind to the most alarming colours. She stamped, gesticulated, scolded, brought a crowd that filled the place; but the philosopher turned not from his eager gaze and his inward meditations on the stone. While the woman's breath held good, she did not seem to heed, but when that began to fail, and the violence of the act moved not one muscle of the object, her rage felt no bounds: she seized him by the breast, and yelling, in an effort of despair, 'Spagh ta ma, or I'll burst,' sank down among the remnant of her fish in a state of complete exhaustion, and before she had recovered, the Doctor's reverie was over, and he had taken his departure." *

Many curious anecdotes of a similar kind are related of the Rev. Dr. George Harvest, one of the ministers of Thames Ditton. So confused on some occasions were the ideas of this singular man, that he has been known to write a letter to one person, address it to a second, and send it to a third. He was once on the eve of being married to the bishop's daughter, when, having gone a gudgeon-fishing, he forgot the circumstance, and overstaid the canonical

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* "New Monthly Magazine," vol. xxviii. p. 510.

hour, which so offended the lady, that she indignantly broke off the match. If a beggar happened to take off his hat to him on the street, in hopes of receiving alms, he would make him a bow, tell him he was his most humble servant, and walk on. He has been known on Sunday to forget the days on which he was to officiate, and would walk into church with his gun under his arm, to ascertain what the people wanted there. Once, when he was playing at backgammon, he poured out a glass of wine, and it being his turn to throw, having the box in one hand and the glass in the other, and being extremely dry, and unwilling to lose any time, he swallowed down both the dice, and discharged the wine upon the dice-board. "Another time," says the amusing narrative which has been published of his peculiarities, "in one of his absent fits, he mistook his friend's house, and went into another, the door of which happened to stand open; and no servant being in the way, he rambled all over the house, till, coming into a middle room, where there was an old lady ill in bed of a quincy, he stumbled over the night-stool, threw a clothes-horse down, and might not have ended there, had not the affrighted patient made a noise at his intrusion, which brought up the servants, who, finding Dr. Harvest in the room, instead of the apothecary that was momentarily

expected, quieted the old lady's fears, who by this time was taken with such an immoderate fit of laughter at his confusion, that it broke the quincy in her throat, and she lived many years afterwards to thank Dr. Harvest for his unlucky mistake." "His notorious heedlessness was so apparent, that no one would lend him a horse, as he frequently lost his beast from under him, or, at least, from out of his hands, it being his frequent practice to dismount and lead the horse, putting the bridal under his arm, which the horse sometimes shook off, or the intervention of a post occasioned it to fall; sometimes it was taken off by the boys, when the parson was seen drawing his bridle after him; and if any one asked him after the amimal, he could not give the least account of it, or how he had lost it."* In short, the blunders which he committed were endless, and would be considered incredible, were they not authenticated by incontestible evidence. Yet, notwithstanding all this, Harvest was a man of uncommon abilities, and an excellent scholar.

I shall conclude by mentioning an anecdote of Mr. Warton, the accomplished Professor of Poetry in the University of Oxford. "This good divine,

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* "Charms of Literature."

having dined with some jolly company at a gentleman's house in that city, passing through the streets to the church, it being summer-time, his ears were loudly saluted with the cry of 'Live mackarel!' This so much dwelt upon the Doctor's mind, that after a nap while the psalm was performing, as soon as the organ ceased playing, he got up to the pulpit, and, with eyes half open, cried out, 'All alive, alive ho!' thus inadvertently keeping up the reputation of a Latin proverb, which is translated in the following lines:—

> 'Great wits to madness nearly are allied,
> And thin partitions do their bounds divide.'

"The Professor of Poetry perhaps supposed himself yet with his companions at the convivial table." *

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* "Charms of Literature."

CHAPTER XVIII.

DROWSINESS.

My heart aches, and a drowsy numbness pains
My sense, as though of hemlock I had drunk,
Or emptied some dull opiate to the drains
One minute past, and Lethe-ward had sunk.

KEATS.

DROWSINESS is symptomatic of apoplexy and some other diseases, but sometimes it exists as a constitutional affection. There are persons who have a disposition to sleep on every occasion. They do so at all times, and in all places. They sleep after dinner; they sleep in the theatre; they sleep in church. It is the same to them in what situation they may be placed: sleep is the great end of their existence—their occupation—their sole employment. Morpheus is the deity at whose shrine they worship—the only god whose influence over them is omnipotent. Let them be placed in almost any circum-

stances, and their favourite passion prevails. It falls upon them in the midst of mirth; it assails them when travelling, whether on the quiet deck of a vessel, moving upon a silent sea, or on the top of the mail coach, rattling along the public road. Let them sail, or ride, or sit, or lie, or walk, sleep overtakes them; binds their faculties in torpor; and makes them dead to all that is passing around. These are our dull, heavy-headed, drowsy mortals; those sons and daughters of phlegm—with passions as inert as a Dutch fog, and intellects as sluggish as the movements of the hypopotamus or leviathan. No class of society is so insufferable as this. There is a torpor about their faculties, and a bluntness in their perceptions, which render them dead to every impression. They have eyes and ears, yet they neither see nor hear; and the most exhilarating scenes may be passing before them without once attracting their notice. It is not uncommon for persons of this stamp to fall asleep in the midst of a party to which they have been invited; and Mr. Mackenzie, in one of his Papers, speaks of an honest farmer having done so alongside of a young lady, who was playing on the harp for his amusement. The cause of this constitutional disposition to doze upon every occasion, seems to be a certain obtuseness of the intellectual perceptions, and an absolute want of fire, passion, and

energy in the character of the individual. He is of a phlegmatic temperament, generally a great eater, and remarkably destitute of imagination. Such are the general characteristics of those who are predisposed to drowsiness; and the cases where such a state co-exists with intellectual energy, are few in number. Such exceptions, however, are to be found; and the late Lord Hailes was one of them. Even at the time when he was engaged in composing his "Annals of Scotland," one of the most acute and discriminating historical works that modern research has produced, he made use of a wheel-chair in his study, through which he was occasionally rapidly driven by a servant, to dispel the strong disposition to slumber, which seemed an inherent part of his natural constitution—coming upon him in the process of active thought, whether in his library or on the bench. In church, it was his custom to divert the approaches of Morpheus, by bribing him with sweet-meats, which he regularly craunched during sermon.

Boerhaave speaks of an eccentric physician who took it into his head that sleep was the natural state of man, and accordingly slept eighteen hours out of the twenty-four—till he died of apoplexy, a disease which is always apt to be produced by excessive sleep.

Cases of constitutional drowsiness are in a great

measure without remedy, for the soporific tendency springs from some natural defect, which no medicinal means can overcome.

Drowsiness sometimes proceeds from a fullness of blood in the head, or a disordered state of the digestive organs. When it originates from the former cause, it becomes necessary to have recourse to general or local blood-letting. The person, likewise, should use, from time to time, mild laxatives, live temperately, and take abundance of exercise. Medicines of a similar kind are necessary when the affection arises from the state of the stomach and bowels: these organs ought to be restored to health, and every symptom consequent on their derangement, will naturally disappear. The cure of drowsiness arising from apoplexy, depends upon the cure of that disease.

Persons who feel the disposition to drowsiness gaining upon them, should struggle against it by every means in their power, for when once the habit is fairly established, its irradication is very difficult. Exercise of body and mind, early rising, and the cold bath, are among the best means for this purpose.

CHAPTER XIX.

PROTRACTED SLEEP.

Deep slumbering in the fatal chair,
He saw King Arthur's child.
Doubt and anger and dismay
From her brow had passed away,
Forgot was all that tournay day,
For, as she slept, she smiled.
It seemed that the repentant seer
Her sleep of many a hundred year
With gentle dreams beguiled.

Bridal of Triermain.

I HAVE already mentioned a few instances of individuals remaining for days or weeks, at a time, in a state of profound sleep. The nature of this extraordinary affection is, in a great measure, unknown; it arises, in most cases, without any obvious cause, generally resists every method that can be adopted for removing it, and disappears of its own accord.

The case of Mary Lyall, related in the 8th volume of the " Transactions of the Royal Society of Edin-

burgh," is one of the most remarkable instances of excessive somnolency on record. This woman fell asleep on the morning of the 27th of June, and continued in that state till the evening of the 30th of the same month, when she awoke, and remained in her usual way till the 1st of July, when she again fell asleep, and continued so till the 8th of August. She was bled, blistered, immersed in the hot and cold bath, and stimulated in almost every possible way, without having any consciousness of what was going on. For the first seven days, she continued motionless, and exhibited no inclination to eat. At the end of this time, she began to move her left hand; and, by pointing to her mouth, signified a wish for food. She took readily what was given to her; still she discovered no symptoms of hearing, and made no other kind of bodily movement than that of her left hand. Her right hand and arm, particularly, appeared completely dead, and bereft of feeling; and even when pricked with a pin, so as to draw blood, never shrunk in the least degree. At the same time, she instantly drew back her left arm whenever it was touched by the point of the pin. She continued to take food whenever it was offered to her. For the first two weeks, her pulse generally stood at 50, during the third and fourth week, about 60; and on the day before her recovery, at 70 or 72. Her

breathing was soft and almost imperceptible, but during the night-time she occasionally drew it more strongly, like a person who has first fallen asleep. She evinced no symptom of hearing, till about four days before her recovery. On being interrogated, after this event, upon her extraordinary state, she mentioned that she had no knowledge of any thing that had happened—that she had never been conscious of either having needed or received food, or of having been blistered; and expressed much surprise on finding her head shaved. She had merely the idea of having passed a long night in sleep.

The case of Elizabeth Perkins is also remarkable. In the year 1788 she fell into a profound slumber, from which nothing could arouse her, and remained in this state for between eleven and twelve days, when she awoke of her own accord, to the great joy of her relatives, and wonder of the neighbourhood. On recovering, she went about her usual business; but this was only for a short period, for in a week after she relapsed again into a sleep which lasted some days. She continued, with occasional intervals of wakefulness, in a dozing state for several months, when she expired.

"There is at Kirkheaton a remarkable instance of excessive sleep. A poor paralytic, twenty years of age, for the last twelve months, has not commonly

been awake more than three hours in the twenty-four. At one period, he slept for three weeks: he took not a particle of either food or drink; nothing could rouse him, even for a moment; yet his sleep appeared to be calm and natural."*

The case of Elizabeth Armitage, of Woodhouse, near Leeds, may also be mentioned. The age of this person was sixty-nine years. She had been for several months in a decline, during which she had taken very little sustenance, when she fell into a state of lethargic stupor, on the morning of the 1st of July, 1827, in which condition she remained, without uttering one word, receiving any food, or showing any signs of life, except breathing, which was at times almost imperceptible. In this state she continued for eight days, when she expired without a groan.

Excessively protracted sleep may ensue from the injudicious use of narcotics. A very striking instance of this kind occurred on 17th February, 1816, near Lymington. In consequence of a complaint with which a child had been painfully afflicted for some time previous, its mother gave it some anodyne, (probably laudanum,) for the purpose of pro-

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* Leeds Mercury.

curing it rest. The consequence was, that it fell into a profound sleep, which continued for three weeks. In this case, in addition to an excessive dose, the child must have possessed some idiosyncracy of constitution, which favoured the operation of the medicine in a very powerful manner.

One of the most extraordinary instances of excessive sleep, is that of the lady of Nismes, published in 1777, in the "Memoirs of the Royal Academy of Sciences at Berlin." Her attacks of sleep took place periodically, at sunrise and about noon. The first continued till within a short time of the accession of the second, and the second continued till between seven and eight in the evening—when she awoke, and continued so till the next sunrise. The most extraordinary fact connected with this case is, that the first attack commenced always at day-break, whatever might be the season of the year, and the other always immediately after twelve o'clock. During the brief interval of wakefulness which ensued shortly before noon, she took a little broth, which she had only time to do, when the second attack returned upon her, and kept her asleep till the evening. Her sleep was remarkably profound, and had all the characters of complete insensibility, with the exception of a feeble respiration, and a weak but regular movement of the pulse. The most singular fact

connected with her, remains to be mentioned. When the disorder had lasted six months, and then ceased, the patient had an interval of perfect health for the same length of time. When it lasted one year, the subsequent interval was of equal duration. The affection at last wore gradually away; and she lived, entirely free of it, for many years after. She died in the eighty-first year of her age, of dropsy, a complaint which had no connection with her preceding disorder.

There are a good many varieties in the phenomena of protracted sleep. In some cases, the individual remains for many days without eating or drinking. In others, the necessity for these natural wants arouses him for a short time from his slumber, which time he indulges in satisfying hunger and thirst, and then instantly gets into his usual state of lethargy. The latter kind of somnolency is sometimes feigned by impostors for the purpose of extorting charity; on this account, when an instance of the kind occurs, it should be narrowly looked into, to see that there is no deception.

The power possessed by the body of subsisting for such a length of time in protracted sleep, is most remarkable, and bears some analogy to the abstinence of the Polar bear during the winter season. It is to be observed, however, that during slumber,

life can be supported by a much smaller portion of food than when we are awake, in consequence of the diminished expenditure of the vital energy which takes place in the former state.

All that can be done for the cure of protracted somnolency, is to attempt to rouse the person by the use of stimuli, such as blistering, pinching, the warm or cold bath, the application of sternutatories to the nose, &c. Blooding should be had recourse to, if we suspect any apoplectic tendency to exist. Every means must be employed to get nourishment introduced into the stomach; for this purpose, if the sleeper cannot swallow, nutritious fluids should be occasionally forced into this organ by means of Jukes' pump, which answers the purpose of filling as well as evacuating it.

CHAPTER XX.

TRANCE.

They saw her stretched on the sward alone,
Prostrate, without a word or motion,
As if in calm and deep devotion!
They laid their hands on her cheek composed;
But her cheek was cold, and her eye was closed.
They laid their hands upon her breast;
But her playful heart seemed sunk to rest.

HOGG.

THERE is some analogy between suspended animation and sleep. It is not so striking, however, as to require any thing like a lengthened discussion of the former, which I shall only consider in so far as the resemblance holds good between it and sleep. I have already spoken of that suspension of the mind, and of some of the vital functions, which occurs in consequence of intense cold: but there are other varieties, not less singular in their nature. The principal of these are, fainting, apoplexy, hanging,

suffocation, drowning, and, especially, trance. When complete fainting takes place, it has many of the characters of death—the countenance being pale, moist, and clammy; the whole body cold; the respiration extremely feeble; the pulsation of the heart apparently at an end; while the mind is in a state of utter oblivion. It is in the latter respect only, that the resemblance exists between syncope and sleep; in every other respect they are widely different. The same rule holds with regard to apoplexy, in which a total insensibility, even to the strongest stimuli, takes place, and the mental functions, for the time being, are utterly suspended. In recoverable cases of drowning, hanging, and suffocation, a similar analogy prevails, only in a much feebler degree; the faculties of the mind being entirely abolished, and the actual existence of the vital spark only discovered by the subsequent restoration of the individual to consciousness and feeling.

The most singular species, however, of suspended animation is that denominated catalepsy, or trance, an effection so remarkable as to require particular notice, although perhaps not, in itself, more strictly allied to sleep than some of the states just mentioned.

By some writers, the term *trance* has been applied to any kind of suspended animation, but I shall restrict it to that particular variety which generally

occurs without the presence of any apparent disease, coming on, as it were, spontaneously, and bearing, in all its attributes, a striking resemblance to death.

This is one of the most singular affections to which the body is subject. During its continuance, the whole frame is cold, rigid, and inflexible, the countenance without colour, the eye fixed and motionless; while breathing and the pulsation of the heart are, to all appearance, at an end. The mental powers, also, are generally suspended, and participate in the universal torpor which pervades the frame. In this extraordinary condition, the person may remain for several days, having all, or nearly all, the characteristics of death impressed upon him. Such was the case with the celebrated Lady Russel, who only escaped premature interment by the affectionate prudence of her husband; and various other well authenticated instances of similar preservation from burying alive, have been recorded.

The nature of this peculiar species of suspended animation, seems to be totally unknown, for there is such an apparent extinction of every faculty essential to life, that it is inconceivable how existence should go on during the continuance of the fit. There can be no doubt, however, that the suspension of the heart and lungs is more apparent than real. It is quite certain that the functions of these organs must

continue, so as to sustain life, although in so feeble a manner as not to come under the cognizance of our senses. The respiration, in particular, is exceedingly slight, for a mirror, held to the mouth of the individual, receives no tarnish whatever from his breath. One fact seems certain, that the functions of the nervous system are wholly suspended, with the exception of such a faint portion of energy, as to keep up the circulatory and respiratory phenomena: consciousness in a great majority of cases is abolished: and there is nothing wanting to indicate the unquestionable presence of death, but that decomposition of the body which invariably follows this state, and which never attends the presence of vitality.

The remote causes of trance are hidden in much obscurity; and, generally, we are unable to trace the affection to any external circumstance. It has been known to follow a fit of terror, and sometimes it ensues after hysteria, epilepsy, or other spasmodic diseases. Nervous and hypochondriac patients are the most subject to its attacks, but sometimes it occurs when there is no disposition of the kind, and when the person is in a state of the most seeming good health.

Case.—"A girl named Shorigny, about twenty-five years old, residing at Paris, had been for two years past subject to hysteria. On the twenty-eighth day after she was first attacked, the physician who came

to visit her, was informed that she had died during the night, which much surprised him, as when he had left her the night before, she was better than usual. He went to see her, in order to convince himself of the fact, and on raising the cloth with which she was covered, he perceived that though her face was very pale, and her lips discoloured, her features were not otherwise in the least altered. Her mouth was open, her eyes shut, and the pupils very much dilated; the light of the candle made no impression on them. There was no sensible heat in her body, but it was not cold and flabby, like corpses in general. The physician returned the next day, determined to see her again before she was buried, and finding that she had not become cold, he gave orders that the coffin should not be soldered down until putrefaction had commenced. He continued to observe her during five days, and at the end of that period, a slight movement was observed in the cloth which covered her. In two hours, it was found that the arm had contracted itself: she began to move, and it was clear that it had only been an apparent death. The eyes soon after were seen opened, the senses returned, and the girl began gradually to recover. This is an extraordinary, but incontestible fact: the girl is still alive, and a great many persons who saw her while she

was in the state of apathy described, are ready to satisfy the doubts of any one who will take the trouble to inquire."*

The case which follows is from the *Canton Gazette*, and is not less curious.

Case.—"On the western suburbs of Canton, a person named Le bought as a slave-woman a girl named Leaning. At the age of twenty-one, he sold her to be a concubine to a man named Wong. She had lived with him three years. About six months ago, she became ill in consequence of a large imposthume on her side, and on the 25th of the present moon died. She was placed in a coffin, the lid of which remained unfastened, to wait for her parents to come and see the corpse, that they might be satisfied she died a natural death. On the 28th, while carrying the remains to be interred in the north side of Canton, a noise or voice was heard proceeding from the coffin, and on removing the covering, it was found the woman had come to life again. She had been supposed dead for three days."

The case of Colonel Townsend, however, is much more extraordinary than either of the above-mentioned. This gentleman possessed the remarkable

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* Mentor.

faculty of throwing himself into a trance at pleasure. The heart ceased apparently to throb at his bidding, respiration seemed at an end, his whole frame assumed the icy chill and rigidity of death; while his face became colourless and shrunk, and his eye fixed, glazed, and ghastly. His mind, itself, ceased to manifest itself, for during the trance it was as utterly devoid of consciousness as his body of animation. In this state he would remain for hours, when these singular phenomena wore away, and he returned to his usual condition. Medical annals furnish no parallel to this extraordinary case. Considered whether in a physiological or metaphysical point of view, it is equally astonishing and inexplicable.

The following case exhibits a very singular instance, in which the usual characteristic—an absence of the mental faculties—was wanting. It seems to have been a most complete instance of suspended volition, wherein the mind was alive, while the body which it inhabited, refused to obey its impulses, and continued in a state of apparent death.

Case.—"A young lady, an attendant on the Princess ——, after having been confined to her bed for a great length of time, with a violent nervous disorder, was at last, to all appearance, deprived of life. Her lips were quite pale, her face resembled

the countenance of a dead person, and the body grew cold.

" She was removed from the room in which she died, was laid in a coffin, and the day of her funeral fixed on. The day arrived, and according to the custom of the country, funeral songs and hymns were sung before the door. Just as the people were about to nail on the lid of the coffin, a kind of perspiration was observed to appear on the surface of her body. It grew greater every moment, and at last a kind of convulsive motion was observed in the hands and feet of the corpse. A few minutes after, during which time fresh signs of returning life appeared, she at once opened her eyes and uttered a most pitiable shriek. Physicians were quickly procured, and in the course of a few days she was considerably restored, and is probably alive at this day.

" The description which she gave of her situation is extremely remarkable, and forms a curious and authentic addition to psychology.

" She said it seemed to her, as if in a dream, that she was really dead; yet she was perfectly conscious of all that happened around her in this dreadful state. She distinctly heard her friends speaking, and lamenting her death, at the side of her coffin. She felt them pull on the dead-clothes, and lay her

in it. This feeling produced a mental anxiety, which is indescribable. She tried to cry, but her soul was without power, and could not act on her body. She had the contradictory feeling as if she were in her body, and yet not in it, at one and the same time. It was equally impossible for her to stretch out her arm, or to open her eyes, or to cry, although she continually endeavoured to do so. The internal anguish of her mind was, however, at its utmost height when the funeral hymns began to be sung, and when the lid of the coffin was about to be nailed on. The thought that she was to be buried alive, was the one that gave activity to her soul, and caused it to operate on her corporeal frame." *

The following is different from either of the foregoing. It originated from terror, and was accompanied with an apparent extinction of the mental powers, while it is probable that all the bodily functions, with the exception of muscular movement, continued. I have given it on account of its singularity, although it does not altogether come under the denomination of trance.

Case.—" George Grokatzhi, a Polish soldier, deserted from his regiment in the harvest of the

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* " Psychological Magazine," vol. v. part iii. page 15.

year 1677. He was discovered a few days after, drinking and making merry in a common ale-house. The moment he was apprehended, he was so much terrified, that he gave a loud shriek, and was immediately deprived of the power of speech. When brought to a court-martial, it was impossible to make him articulate a word; nay, he then became as immoveable as a statue, and appeared not to be conscious of any thing that was going forward. In the prison to which he was conducted, he neither ate nor drank. The officers and priests at first threatened him, and afterwards endeavoured to soothe and calm him, but all their efforts were in vain. He remained senseless and immoveable. His irons were struck off, and he was taken out of the prison, but he did not move. Twenty days and nights were passed in this way, during which he took no kind of nourishment; he then gradually sunk and died." *

It would be out of place to enter here into a detail of the medical management of the first mentioned varieties of suspended animation, such as drowning, strangulation, &c. &c., and with regard to the treatment of trance, properly so called, a very few words will suffice.

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* Bonetus "*Medic Septentrion*," lib. i. sect. xvi. cap. 6.

If we have reason to suppose that we know the cause of the affection, that, of course, must be removed whenever practicable. We must then employ stimuli to arouse the person from his torpor, such as friction, the application of sternutatories and volatile agents to the nostrils, and electricity. This latter is likely to prove a very powerful means, and should always be had recourse to, when other methods fail. I should think the warm bath might be advantageously employed. When even these remedies do not succeed, we must trust to time. So long as the body does not run into decay, after a case of suspended animation arising without any very obvious cause, interment should not take place, for it is possible that life may exist, although, for the time being, there is all the appearance of its utter extinction. Decomposition, in such cases, is the only infallible mark that existence is at an end, and that the grave has triumphed.

CHAPTER XXI.

DEATH.

How wonderful is Death,
Death and his brother Sleep!
One pale as yonder waning moon,
With lips of lurid blue;
The other rosy as the morn,
When, throned on ocean's wave,
It blushes o'er the world.
Yet both so passing wonderful!

SHELLEY.

DEATH has been poetically called "the brother of sleep;" and there is certainly a strong affinity between the two conditions, for, while sleep is the torpitude of some of the functions, death is the torpitude of the whole of them. When it takes place, the principle of life becomes extinguished, and every organ which that principle influenced, ceases to act. So soon as this is the case, the body enters into new combinations. It parts with the warmth,

the complexion, the expression which vitality infused over it, and becomes a lifeless mass of rapidly decomposing matter. In cases where animation is suddenly extinguished, as in apoplexy, catalepsy, and drowning, the animal decay is the only infallible sign that life is at an end, and that the reign of death has commenced. It becomes, thus, a matter of consequence to distinguish the sleep of life from that of death, seeing that in some instances the former so closely counterfeits the latter, as almost to baffle any ordinary power of discrimination. The grand mark which points out that the vital principle is at an end, is the decomposition of the body, an event which invariably follows death, but which can never take place while life exists. When, therefore, persons seem to die suddenly, they ought never to be interred till this makes its appearance, as it is possible that the state in which they are, may be one of these protracted trances, that sometimes continue for days at a time, and become spontaneously broken, after resisting the influence of the most powerful stimuli. By neglecting this rule, a person may be interred alive; nor can there be a doubt that such dreadful mistakes have occasionally been committed, especially in France, where it is a common custom to commit the body to the grave twenty-four hours after death.

CHAPTER XXII.

SLEEP OF THE SOUL.

Cold in the dust this perished heart may lie,
But that which warmed it once, shall never die.
That spark, unburied in its mortal frame,
With living light, eternal, and the same,
Shall beam on Joy's interminable years,
Unveiled by darkness, unassuaged by tears!

CAMPBELL.

THEOLOGICAL writers have never been able to agree upon the state of the soul during that period which elapses between death and the resurrection. Some conceive that, on the decease of the body, it is at once transferred to the endless pains or bliss awarded towards it by the fiat of the Eternal. Others imagine that it continues in a state of sleep till the Day of Judgment; when it awakes from the torpor which enchained it in forgetfulness; and, from that moment, enters, at once, either into everlasting punishment or everlasting felicity. These are the two great

leading opinions on this subject; and each has been maintained with equal zeal, piety, and learning, by many of our most able divines. On a path where the views of the best and wisest of men are at variance, and where the lights to guide us are so faint and obscure, it is perhaps most prudent not to venture very far; for, where their intellectual vision has proved insufficient to pierce through the deep veil of mystery in which the way is shrouded, it is not likely that our far more limited faculties can succeed. Nor is this to be regretted; for whether the energies of the soul are suspended in a temporary sleep till the Last Day, or whether it springs at once into the state of joy or punishment destined for it by God, the question of its immortality remains unaffected; and the inducements to religion, and whatever may tend to bestow an eternity of happiness, instead of sorrow, are, in both cases, the same.

CHAPTER XXIII.

GENERAL MANAGEMENT OF SLEEP.

..... Would you sweetly waste the blank of night
In deep oblivion; or on fancy's wings
Visit the paradise of happy dreams,
And waken cheerful as the lively morn;
Oppress not nature sinking down to rest,
With feasts too late, too solid, or too full;
But be the first concoction half matured
Ere you to mighty indolence resign
Your passive faculties.

ARMSTRONG.

IN the foregoing pages, I have detailed at length all the principal phenomena of sleep; and it now only remains to state such circumstances as affect the comfort and healthfulness of the individual while in that condition. The first I shall mention is the nature of the chamber in which we sleep: this should be always large, high-roofed, and airy. In modern houses, these requisites are too much overlooked;

and the sleeping apartments sacrificed to the public rooms, which are of great dimensions, while the bed-rooms resemble closets more than any thing else. This error is exceedingly detrimental to health. The rooms wherein so great a portion of life is passed, should always be roomy, and, if possible, not placed upon the ground-floor, because such a situation is apt to be damp and worse ventilated than higher up.

The next consideration applies to the bed itself, which ought to be large, and not placed near to the wall, but at some distance from it, both to avoid any dampness which may exist, and admit a freer circulation of air. The curtains should never be drawn closely together, even in the coldest weather. Some space ought always to be left open; and when the season is not severe, they should be removed altogether. The mattress, or bed, on which we lie, ought always to be rather hard. Nothing is more injurious to health than soft beds; they effeminate the individual, render his flesh soft and flabby, and incapacitate him from undergoing any privation. The texture of which the couch is made, is not of much consequence, provided it be not too soft: hence, feather-beds, or mattresses of hair or straw, are almost equally good, if they are suitable in this particular. I may mention, however, that the hair

mattress, from being cooler, and less apt to imbibe moisture, is preferable, at least during the summer season, to a bed of feathers. Those soft yielding feather-beds, in which the body sinks deeply, are highly pernicious, as they keep up an unnatural heat, and maintain, during the whole night, a state of exhausting perspiration. Air-beds have been lately recommended, but I can assert, from personal experience, that they are the worst that can possibly be employed. They become very soon heated to a most unpleasant degree; and it is impossible to repose upon them with any comfort: the same remark applies to air-pillows, which I several times attempted to use, but was compelled to desist, owing to the disagreeable heat that was generated in a few minutes.

The pillow, as well as the bed or mattress, should be pretty hard. When it is too soft, the head soon sinks in it, and becomes very hot and unpleasant.

With regard to the covering, there can be no doubt that it is most wholesome to lie between sheets. Some persons prefer having blankets next their skin, but this, besides being an uncleanly practice, is hurtful to the constitution, as it generates perspiration, and keeps up a heat which cannot but be injurious.

A common custom prevails, of warming the bed

before going to sleep. This, also, except with delicate people, and during very cold seasons, is pernicious. It is far better to let the bed be chafed by the natural heat of the body, which, in most cases, even in very severe weather, will be sufficient for the purpose.

We ought never to sleep overloaded with clothes, but have merely what is sufficient to keep up a comfortable warmth, and no more. When this is exceeded, we straightway perspire, which not only breaks the sleep, but has a bad effect upon the system.

When a person is in health, the atmosphere of his apartment should be cool; on this account, fires are exceedingly hurtful, and should never be had recourse to, except when the individual is delicate, or the weather intolerably severe. When they become requisite, we should carefully guard against smoke, as fatal accidents have arisen from this cause.

The window-shutters ought never to be entirely closed, neither ought they to be kept altogether open. In the first case, we are apt to oversleep ourselves, owing to the prevailing darkness with which we are surrounded; and in the second, the light which fills the apartment, especially if it be in the summer season, may disturb our repose, and waken us at an earlier hour than there is any occasion for.

Under both circumstances, the eyes are liable to suffer: the darkness, in the one instance, disposes them to be painfully affected, on exposure to the brilliant light of day, besides directly debilitating them—for, in remaining too much in the gloom, whether we be asleep or awake, these organs are sure to be weakened more or less. In the other case, the fierce glare of the morning sun acting upon them, perhaps for several hours before we get up, does them equal injury, and makes them tender and easily injured by the light. The extremes of too much and too little light must, therefore, be avoided, and such a moderate portion admitted into the chamber as not to hurt the eyes, or act as too strong a stimulus in breaking our slumbers.

During the summer heats, the clothing requires to be diminished, so as to suit the atmospheric temperature; and a small portion of the window drawn down from the top, to promote a circulation of air; but this must be done cautiously, and the current prevented from coming directly upon the sleeper, as it might give rise to colds, and other bad consequences. The late Dr. Gregory was in the habit of sleeping with the window drawn slightly down during the whole year; and there can be no doubt that a gentle current pervading our sleeping apartments, is in the highest degree essential to health.

Nothing is so injurious as damp beds. It becomes, therefore, every person, whether at home or abroad, to look to this matter, and see that the bedding on which he lies is thoroughly dry, and free from even the slightest moisture. By neglecting such a precaution, rheumatism, colds, inflammations, and death itself may ensue. Indeed, these calamities are very frequently traced to the circumstance of the person's having incautiously slept upon a damp bed. For the same reason, the walls and floor of the room should be dry, and wet clothes should never be hung up, as the atmosphere is sure to become impregnated with a moisture which is highly pernicious. In like manner, we should avoid sleeping in a bed that has been occupied by the sick, till the bedding has been cleansed and thoroughly aired. When a person has died of any infectious disease, the clothes in which he lay ought to be burned; and this should be extended to the bed or mattress itself. Even the bedstead should be carefully washed and fumigated.

Delicate persons who have been accustomed to sleep upon feather-beds, should be cautious not to exchange them rashly for any other.

On going to sleep, all sorts of restraints must be removed from the body; the collar of the night-shirt should be unbuttoned, and the neckcloth taken off. With regard to the head, the more lightly it is

covered the better: on this account, we should wear a thin cotton or silk night-cap; and this is still better if made of net-work. Some persons wear worsted, or flannel caps, but these are exceedingly improper, and are only justifiable in old or rheumatic subjects. The grand rule of health is to keep the head cool, and the feet warm; hence, the night-cap cannot be too thin. In fact, the chief use of this piece of clothing is to preserve the hair, and prevent it from being disordered and matted together.

Sleeping in stockings is a bad and uncleanly habit, which should never be practised. By accustoming ourselves to do without any covering upon the feet, we will seldom experience any uneasy feeling of cold in these parts, provided we have a sufficiency of clothing about us, to keep the rest of the system comfortable; and if, notwithstanding, they still remain cold, this can easily be obviated by wrapping a warm flannel-cloth around them, or by applying to them, for a few minutes, a heated iron, or a bottle of warm water.

The posture of the body must also be attended to. The head should be tolerably elevated, especially in plethoric subjects: consequently, the bolster or pillows must be suitable to this purpose. The position, from the neck downwards, ought to be as nearly as possible horizontal. The half-sitting

posture, with the shoulders considerably elevated, is exceedingly injurious, as the thoracic and abdominal viscera are thereby compressed, and respiration, digestion, and circulation materially impeded. Lying upon the back is also improper, in consequence of its bad effect upon the breathing, and tendency to produce night-mare. Most people pass the greater part of the night upon the side, which is certainly the most comfortable position that can be assumed in sleep. According to Dr. A. Hunter, women who love their husbands generally lie upon the right side. On this point, I can give no opinion. I have known individuals who could not sleep except upon the back, but these are rare cases.

I have mentioned the necessity of a free circulation of air. On this account, it is more wholesome to sleep single than double, for there is then less destruction of oxygen; and the atmosphere is much purer and cooler. For the same reason, the practice, so common in public schools, of having several beds in one room, and two or three individuals in each bed, must be highly deleterious. When more than one sleep in a single bed, they should take care to place themselves in such a position as not to breathe in each other's faces. Some persons have a dangerous custom of covering their heads with the bed-clothes. This practice, also, from the exhaustion of vital

air which it occasions, must be carefully abstained from.

Before going to bed, the body ought to be brought into that state which gives us the surest chance of relapsing speedily into sleep. If it be too hot, its temperature should be reduced by cooling drinks, by exposure to the open air, by sponging, or even by the cold bath. If it labour under cold, it must be brought into a comfortable state by warmth; for both cold and heat act as stimuli, and their removal is necessary before slumber can ensue. A full stomach, also, often prevents sleep; consequently, supper ought to be dispensed with, excepting by those who, having been long used to this meal, cannot sleep without it. As a general rule, the person who eats nothing for two or three hours before going to rest, will sleep better than he who does. His sleep will also be more refreshing, and his sensations upon awaking much more gratifying. The Chinese recommend brushing the teeth and gums previous to lying down. This is a good, though somewhat troublesome custom. Sleeping after dinner is a bad practice. On awaking from such indulgence, there is generally some degree of febrile excitement, in consequence of the latter stages of digestion being hurried on: it is only useful in old people, and in some cases of disease. Sleep becomes wholesome

only to the healthy when taken at those hours pointed out by nature.

The weak, and those recovering from protracted illnesses, must be indulged with more sleep than such as are vigorous. Sleep, in them, supplies, in some measure, the place of nourishment, and thus becomes a most powerful auxiliary for restoring them to health. Much repose is likewise necessary to enable the system to recover from the effects of dissipation.

Too little and too much sleep are equally injurious. Excessive wakefulness, according to Hippocrates, prevents the aliment from being digested, and generates crude humours. An excess of sleep produces lassitude and corpulency, and utterly debases and stupifies the mind. There is no character more truly despicable and useless than the sluggard. Corpulent people, in particular, are apt to indulge in excessive sleep: this habit they ought to break at once, as, in their case, it is peculiarly dangerous. They should sleep little, and upon hard beds, while they should take abundance of exercise, and live abstemiously, that their bulk may be reduced.

The practice of sleeping in the open air, cannot be too strongly reprobated. It is, at all times, dangerous, especially when carried into effect under a burning sun, or amid the damps of night. In tropical

climates, where this custom is indulged in during the day, it is not unusual for the person to be struck with a *coup-de-soleil*, or some violent fever; and, in our country, nothing is more common than inflammations, rheumatisms, and dangerous colds, originating from sleeping upon the ground, either during the heat of the day, or when the evening has set in with its attendant dews and vapours.

With regard to the sleep of children, it may be remarked that the custom of rocking them into repose by the cradle, is not to be recommended, sanctioned though it be by the voice of ages. This method of procuring slumber, not only heats the infant unnecessarily, but, in some cases, disorders the digestive powers, and, in most, produces a sort of artificial sleep, far less conducive to health, than that brought on by more natural means. According to some writers, it has also a tendency to induce water in the head, a circumstance which I think possible, although I never knew a case of that disease which could be traced to such a source. The cradle, therefore, should be abandoned, so far as the rocking is concerned, and the child simply lulled to repose in the nurse's arms, and then deposited quietly in bed. For the first month of their existence, most children sleep almost continually, and they should be permitted to do so, for at this early age they cannot

slumber too much: calm and long-continued sleep is a favourable symptom, and ought to be cherished rather than prevented, during the whole period of infancy. When, however, a child attains the age of three or four months, we should endeavour to manage so that its periods of wakefulness may occur in the day-time, instead of at night. By proper care, a child may be made to sleep at almost any hour; and as this is always an object of importance, it should be sedulously attended to in the bringing up of children. Until about the third year, they require a little sleep in the middle of the day, and pass half their time in sleep. Every succeeding year, till they attain the age of seven, the period allotted to repose should be shortened one hour, so that a child of that age may pass nine hours, or thereby, in the twenty-four, in a state of sleep. Children should never be awakened suddenly, or with a noise, in consequence of the terror and starting which such a method of arousing them produces: neither should they be brought all at once from a dark room into a strong glare of light, lest their eyes be weakened, and permanent injury inflicted upon these organs.

I have already stated that night is the period for repose, and day that for being awake. It by no means follows, however, that we are to go to bed so soon as night sets in, and sleep till the day makes its

appearance. In this climate, the length of the days and nights is so variable, that such a practice would be constantly liable to fluctuations, and our slumber scarcely of the same duration for any two nights, during the whole year. The rule is general in its application, and must not be too literally interpreted. It is not meant to imply, that we should sleep *all night*, and be awake *all day*, but simply that the greater part of our slumbering existence should be passed in the former, and the greater part of our waking in the latter. At whatever period we go to sleep, one fact is certain, that we can never with impunity convert day into night. Even in the most scorching seasons of the year, it is better to travel under the burning sunshine, than in the cool of the evening, when the dews are falling and the air is damp. A case in support of this statement, is given by Valangin, in his Work on "Diet." Two Colonels in the French army had a dispute whether it was most safe to march in the heat of the day, or in the evening. To ascertain this point, they got permission from the commanding officer, to put their respective plans into execution. Accordingly, the one with his division marched during the day, although it was in the heat of summer, and rested all night—the other slept in the day-time, and marched during the evening and part of the night.

The result was, that the first performed a journey of six hundred miles, without losing a single man or horse, while the latter lost most of his horses, and several of his men.

It now becomes a question at what hour we should retire to rest, how long our rest ought to continue, and at what hour it should be broken in the morning. These points I shall briefly discuss, in the order which they stand.

It is not very easy to ascertain the most appropriate hour for going to bed, as this depends very much upon the habits and occupation of the individual. Labourers and all hard wrought people, who are obliged to get up betimes, require to go to rest early; and in their case, nine o'clock may be the best hour. Supposing them to awake at five in the morning, they have thus eight hours of repose. Those who are not obliged to awake so early, may delay the period of retiring to rest for an hour or two longer; and may thus go to bed at ten or eleven. These are the usual periods allotted among the middle ranks of life for this purpose; and it may be laid down as a rule, that to make a custom of remaining up for a later period than eleven, must be prejudicial. Those, therefore, who habitually delay going to bed till twelve, or one, or two, are acting in direct opposition to the laws of health, in so far

as they are compelled to pass in sleep a portion of the ensuing day, which ought to be appropriated to wakefulness and exertion. Late hours are in every respect hurtful to the frame, whether they be employed in study, dissipation, or pleasure. They throw a fresh supply of stimulus upon the mind, which prevents it from sinking into slumber at the proper period, and thus give rise to restlessness, dreaming, and disturbed repose. Among other things, they exert an injurious effect upon the eyes, which suffer much more from the candle-light, to which they are necessarily exposed, than from the natural light of day.

With regard to the necessary quantity of sleep, so much depends upon age, constitution, and employment, that it is impossible to lay down any fixed rule which will apply to all cases. Jeremy Taylor states that three hours only out of the twenty-four should be spent in sleep. Baxter extends the period to four hours, Wesley to six, Lord Coke and Sir William Jones to seven, and Sir John Sinclair to eight. With the latter I am disposed to coincide. Taking the average of mankind, we will come as nearly as possible to the truth when we say that nearly one-third part of life should be spent in sleep: in some cases, even more may be necessary, and in few can a much smaller portion be safely dispensed

with. When a person is young, strong, and healthy, an hour or two less may be sufficient; but childhood and extreme old age require a still greater portion. No person who passes only eight hours in bed, can be said to waste his time. If, however, he exceeds this, and is, at the same time, in possession of vigour and youth, he lays himself open to the charge of passing in slumber those hours which should be devoted to some other purpose. Too little sleep shortens life, as much as an excess of sleep. Barry, in his Work on "Digestion," has made an ingenious, but somewhat whimsical, calculation on this subject. He asserts, that the duration of human life may be ascertained by the number of pulsations which the individual is able to perform. Thus, if a man's life extends to 70 years, and his heart throbs 60 times each minute, the whole number of its pulsations will amount to 2,207,520,000; but if, by intemperance, or any other cause, he raises the pulse to 75 in the minute, the same number of pulsations would be completed in 56 years, and the duration of life abbreviated 14 years. Arguing from these facts, he alleges, that sleep has a tendency to prolong life, as, during its continuance, the pulsations are less numerous than in the waking state. There is a sort of theoretical truth in this statement, but it is liable to be modified by so many circumstances, that its

application can never become general. If this were not the case, it would be natural to infer that the length of a man's life would correspond with that of his slumbers, whereas, it is well known, that too much sleep debilitates the frame, and lays the foundation of various diseases, which tends to shorten instead of extending its duration.

The persons who sleep most, are those who require least of this indulgence. These are the wealthy and luxurious, who pass nearly the half of their existence in slumber, while the hard-working peasant and mechanic, who would seem, at first sight, to require more than any other class of society, are contented with seven or eight hours of repose—a period brief in proportion to that expended by them in toil, yet sufficiently long for the wants of nature, as is proved by the strength and health which they almost uniformly enjoy.

More sleep is requisite, for the reasons already stated, in winter than in summer. Were there even no constitutional causes for this difference, we would be disposed to sleep longer in the one than in the other, as many of the causes which induce us to sit up late and rise early in summer, are wanting during winter; and we consequently feel disposed to lie in bed for a longer period of time during the latter season of the year.

The hour of getting up in the morning is not of less importance than that at which we ought to lie down at night. There can be no doubt that one of the most admirable conducives to health is early rising. "Let us," says Solomon, "go forth into the fields; let us lodge in the villages; let us *get up early* to the vineyards; let us see if the vine flourish —if the tender grape appear—if the pomegranates bud forth."

Almost all men who have distinguished themselves in science, literature, and the arts, have been early risers. The industrious, the active-minded, the enthusiast in the pursuit of knowledge or gain, are up betimes at their respective occupations; while the sluggard wastes the most beautiful period of life in pernicious slumber. Homer, Virgil, and Horace are all represented as early risers: the same was the case with Paley, Franklin, Priestley, Parkhurst, and Buffon, the latter of whom ordered his *valet-de-chambre* to awaken him every morning, and to compel him to get up by force if he evinced any reluctance: for this service, the valet was rewarded with a crown each day, which recompence he forfeited if he did not oblige his master to get out of bed before the clock struck six. Bishops Jewel and Burnet rose regularly every morning at four o'clock. Sir Francis More did the same thing; and so convinced

was he of the beneficial effects of getting up betimes, that, in his "Utopia," he represented the inhabitants attending lectures before sunrise. Napoleon was an early riser; so was Frederick the Great and Charles XII.; so, it is said, is the Duke of Wellington; and so, in truth, is almost every one distinguished for energy and indefatigability of mind.

Every circumstance contributes to render early rising advisable to those who are in the enjoyment of health. There is no time of the day equal in beauty and freshness to the morning, when nature has just parted with the gloomy mantle which night had flung over her, and stands before us like a young bride, from whose aspect the veil which covered her loveliness, has been withdrawn. The whole material world has a vivifying appearance. The husbandman is up at his labour, the forest leaves sparkle with drops of crystal dew, the flowers raise their rejoicing heads towards the sun, the birds pour forth their anthems of gladness; and the wide face of creation itself seems as if awakened and refreshed from a mighty slumber. All these things, however, are hid from the eyes of the sluggard: nature, in her most glorious aspect, is, to him, a sealed book; and while every scene around him is full of beauty, interest, and animation, he alone is passionless and uninspired. Behold him stretched

upon his couch of rest! In vain does the clock proclaim that the reign of day has commenced! In vain does the morning light stream fiercely in by the chinks of his window, as if to startle him from his repose! He hears not—he sees not, for blindness and deafness rule over him with despotic sway, and lay a deadening spell upon his faculties. And when he does at length awake—far on in the day—from the torpor of this benumbing sleep, he is not refreshed. He does not start at once into new life—an altered man, with joy in his mind, and vigour in his frame. On the contrary, he is dull, languid, and stupid, as if half recovered from a paroxysm of drunkenness. He yawns, stretches himself, and stalks into the breakfast parlour, to partake in solitude, and without appetite, of his unrefreshing meal—while his eyes are red and gummy, his beard unshorn, his face unwashed, and his clothes disorderly, and ill put on. Uncleanliness and sluggishness generally go hand in hand; for the obtuseness of mind which disposes a man to waste the most precious hours of existence in debasing sleep, will naturally make him neglect his person. "A little more sleep," says Solomon, "a little more slumber, a little more folding of the hands to sleep." "How long wilt thou sleep, O sluggard? when wilt thou arise out of thy sleep?"

The character of the early riser is the very reverse of the sloven's. His countenance is ruddy, his eye joyous and serene, and his frame full of vigour and activity. His mind, also, is clear and unclouded, and free from that oppressive languor which weighs like a night-mare upon the spirit of the sluggard. The man who rises betimes, is in the fair way of laying in both health and wealth; while he who dozes away his existence in unnecessary sleep, will acquire neither. On the contrary, he runs every chance of losing whatever portion of them he may yet be in possession of, and of sinking fast in the grade of society—a bankrupt both in person and in purse. "He that is slothful in his work is brother to him that is a great waster:" "and drowsiness shall clothe a man with rags."

The most striking instances of the good effects of early rising, are to be found in our peasantry and farmers, whose hale complexions, good appetites, and vigorous persons, are evidences of the benefit derived from this custom, conjoined with labour; while the wan, unhealthy countenances, and enfeebled frames of those who keep late hours, lie long in bed, and pass the night in dissipation, study, or pleasure, are equally conclusive proofs of the pernicious consequences resulting from an opposite practice.

Early rising, therefore, is highly beneficial, but

care should be taken that it is not carried to excess, for it is just as bad to make a practice of getting up too soon, as to continue up till a very late hour at night. It can never be healthful to rise till the sun has been for some time above the horizon; for, until this is the case, there is a dampness upon the morning air which must prove injurious to the constitution, especially when it is not naturally very strong. Owing to this, early rising is injurious to most delicate people; and in all cases, the heat of the sun should be allowed to have acquired some strength before we think of getting out of doors. No healthy man in the summer, should lie longer in bed than six o'clock. If he does so, he loses the most valuable part of the day, and injures his own constitution. Persons subject to gout, should always go to sleep early, and rise early. The former mitigates the violence of the evening paroxysm, which is always increased by wakefulness; and the latter lessens the tendency to plethora, which is favoured by long protracted sleep.

It is common in some of the foreign universities to go to bed at eight, and rise at three or four in the morning; and this plan is recommended by Willich in his "Lectures on Diet and Regimen." Sir John Sinclair, in allusion to it, judiciously observes. "I have no doubt of the superior healthi-

ness, in the winter-time, of rising by day-light, and using candle-light at the close of the day, than rising by candle-light, and using it some hours before day-light approaches. It remains to be ascertained by which system the eyes are least likely to be affected."

The ingenious Dr. Franklin, in one of his Essays, has some fine observations on early rising; and makes an amusing calculation of the saving that might be made in the city of Paris alone, by using the sunshine instead of candles. This he estimates at 96,000,000 of livres, or £4,000,000 sterling. This is mentioned in a satirical vein, but probably there is a great deal of truth in the statement. Indeed, if people were to go sooner to bed at night, and get up earlier in the morning, it is inconceivable what sums might be saved; but, according to the absurd custom of polished society, day is, in a great measure, converted into night, and the order of things reversed in a measure at once capricious and hurtful.

To conclude. The same law which regulates our desire for food, also governs sleep. As we indulge in sleep to moderation or excess, it becomes a blessing or a curse; in one case recruiting the energies of nature, and diffusing vigour alike over the mind and frame: in the other, debasing the

character of man, stupifying his intellect, enfeebling his body, and rendering him useless alike to others and to himself. The glutton, the drunkard, and the sloven bear the strictest affinity to each other, both in the violation of nature's laws, and in the consequences thence entailed upon themselves. What in moderation is harmless or beneficial, in excess is a curse; and sleep, carried to the latter extreme, may be pronounced an act of intemperance almost as much as excessive eating or drinking.

INDEX.

PAGE

Abimelech, ... 102
Absorption increased by sleep, ... 23
Abstraction, ... 202
Age modifies sleep, ... 35
American Lady, ... 170
Animals, Dreams of, ... 53
....., Sleep of, ... 40
Apparitions, Causes of, ... 133
Archimedes, an instance of mental absence, ... 10
Armitage, Elizabeth, ... 218

Barclay, Captain, Fact concerning, ... 33
Barry, Ingenious calculation by, ... 252
Baxter, his theory of dreaming, ... 51
Beattie, Dr., ... 54, 57, 70
Bed, ... 238
Beds, Damp, Injurious effects of, ... 242
Blumenbach, Case related by, ... 24
Boerhaave, Anecdote of, ... 182
....., Case related by, ... 213
....., Method adopted by him to procure sleep, ... 16

PAGE

Brain, Function of the, ... 8
Buffon, ... 190, 254
Burnet, Bishop, ... 254
Byron, Lord, Scene described by, ... 169

Canton Gazette, Case of trance from, ... 227
Cardan, ... 46
Cartesians, Doctrine of the, ... 13
Castel, M., his observation, ... 25
Charles XII., ... 255
Children, Sleep of, ... 36, 54, 247
Circulation, Rapidity of the, diminished in sleep, ... 24
Clay, Alderman, Anecdote concerning, ... 113
Clergyman, Case of a, ... 159
Cœlius Aurelianus, ... 143
Coke, Lord, ... 251
Cold produces sleep, ... 17
Cullen, Dr., his observations on sleep, ... 18, 31
Culpepper, Lord, Trial of his brother, ... 159

D——, Mr. Case of, ... 109
Darwin, Dr., Case by, ... 170
——— Curious fact noticed by, ... 74
——— his remedy for night-mare, ... 145
——— his opinions, ... 38, 130
Davies, George, Case of, ... 173
Day-Mare, ... 148
Death, ... 233
Democritus, his theory of dreaming, ... 51
Digestion increased by sleep, ... 23
Diseases, Cure of, favoured by sleep, ... 45
Dreaming, ... 50
——— Management of, ... 98
Dreams of animals, ... 53
——— of children, ... 54

PAGE

Dreams of the dead,..... 76
..... Prophetic power of, ... 101
Dropsy, Dreams of, ... 69
Drowsiness,..... 211
Drunkenness, Nature of dreams produced by, ... 58
Dryden, Method adopted by, to procure splendid dreams,... 57
Dupaty, President, ... 104

Early Rising, ... 255
Edwards, Dr., ... 189
Elephants, Taming of,..... 182
Elliot, General, a striking case of abstinence, ... 34
Essex Herald, Case from, ... 156
Eye, Effects of dreaming upon the,..... 73
..... State of pupil of the,..... 27

Fanshawe, Lady, case from her Memoirs, ... 111
Fever, Dreams of, ... 68
Flower-Dial,..... 48
Forestus, Case from, ... 149
Franklin, Captain, Extract from his Travels,..... 189
Franklin, Dr.,..... .....254, 259
Frederick the Great, ...34, 255
Fuseli, Method adopted by, to procure splendid dreams,... 57

George III. cured of sleeplessness, ... 184
Gooch, Mr., Case related by, ... 34
Good, Dr. Mason, his theory of sleep-walking,..... 153
Gordon, John, Esq., of Swiney, Anecdote by,..... 34
Great Sympathetic Nerve, Function of the, ... 8
Gregory, Dr., Fact concerning, ... 241
Grokatzhi, George, Case of, ... 230

Habit modifies sleep,..... 31
Hailes, Lord, Anecdote of,..... 213

PAGE

Haller, ... 100
Hamilton, Dr. Robert, Case of, ... 205
Harvest, Dr. George, Anecdotes of, ... 207
Haycock, Richard, delivered sermons in his sleep, ... 170
Hazlitt, his opinion, ... 81
Heat produces sleep, ... 15
Hildesheim, ... 138
Hippocrates, ... 246
Hogarth, Anecdote of, ... 204
Holbein's "Dance of Death," 88
Homer, ... 254
Horace, ... 254
Horror, Dreams of, ... 72
Hunger, Dreams of, ... 69
Hunter, D. A., his opinion, ... 244
Hunter, John, ... 34
Hybernation of Animals, ... 188
Hypochondria, Dreams of, ... 68

Ideas, Confusion of, ... 21, 40
Illusion of Dreams, ... 82, 92
——— Case of dreaming, ... 84
Introduction, ... 1

Jaundice, Dreams of, ... 69
Jewel, Bishop, ... 254
Job, Quotation from, ... 7
Jones, Sir William, ... 251

Kidneys, Secretion of the, ... 26

Lancet, Case from the, ... 173
Life, Definition of, ... 5
Light, its influence on sleep, ... 240
Locke, Mr., ... 54

PAGE

Love, Dreams of, ... 77
Lucretius, ...51, 70
Lyall, Mary, Case of, ... 215
Lyttleton, Lord, ... 115

M——, of D——, Mr., Case of, ... 114
Macbeth, Lady, ... 156
M'Dougal, Helen, Statement regarding, ... 95
Meal, Heavy, produces sleep, ... 20
Medulla Oblongata, Function of the, ... 8
..... Spinalis, Function of the, ... 8
Moivre, De, ... 37
Monotony produces sleep, ... 16
Montgomery, his observation on the time for sleep, ... 3
Moore, Sir John, ... 162
More, Sir Francis, ... 254

Napoleon, Emperor, ...33, 178, 255
Narcotics, ...19, 90
Nebuchadnezzar, ... 102
Nervous System, ... 8
Newton, an instance of mental absence, ... 10
Nicolai, Case of, ... 133
Night-Cap, ... 243
Night-Mare, ... 125
Night, the time for sleep, ...3, 42
Nismes, Lady of, Case of, ... 219
Nutrition, increased by sleep, ... 23

Old Age, Sleep of, ... 37
" Opium-Eater," Extracts from the, ...62, 88
Opium, its effects, ... 90
Orvin, Elizabeth, ... 33

Paley, ... 254

PAGE

Park, Dr., his opinion of the physical cause of sleep-walking,..... 154
Parkhurst, ... 254
Parr, Dr., ...66, 67
Parr, Thomas, ... 37
Perkins, Elizabeth, a great sleeper, ... 217
Pharaoh, ... 102
Phlegmatic people great sleepers, ...19, 29
Pichegru, General, ... 34
Pillow, ... 239
Plants, Sleep of, ... 47
Polydori, Dr., Anecdote of,..... 146
Position assumed in sleep, ...21, 30, 243
Priestley,..... 254
Protracted sleep, ... 215
" Psychological Magazine," Case of trance from the, ... 228

Quin, the celebrated player, ... 33

R——, Miss, Case of,..... 106
Radcliffe, Mrs., Method adopted by, to procure frightful dreams,..... 57
Reid, Dr.,.....54, 100
Respiration, Rapidity, of diminished in sleep,..... 22
Revelations, Book of, ... 102
Reverie,..... 199
Richerand, Extract from,..... 44
Russel, Lady, ... 224

Sanctorius, his Remarks on Perspiration, ... 24
Saviour, Our, his birth foretold in a dream, ... 102
Scott, Sir Walter, Case by,..... 119
Sensorial Power, The, ... 8
Shorigny, Case of, ... 225
Silimachus, ... 116

PAGE

Sinclair, Sir John, ...34, 251, 258
Sleep from cold, ... 188
..... in general, ... 12
..... of the soul, ... 236
..... General management of, ... 237
..... Use of, ... 44
..... of plants, ... 47
Sleeplessness, ... 177
Sleep-Talking, ... 168
Sleep-Walking, ... 151
Sluggard, Picture of the, ... 255
Snoring, ... 27
Solander, Dr., Case of, ... 191
Solomon, his observations, ...254, 256
Spallanzani, ... 190
Speech, Loss of, recovered by a dream, ... 72
Squire, Archdeacon, Case related by, ... 71
Stature, Effect of rest upon, ... 27
Stewart, Dugald, Mr., ...69, 100
Stockings, Bad effect of sleeping in, ... 243
Stupor, difference between it and sleep, ... 5
Supper, Bad effects of, ...138, 245
Surprise, Absence of, ... 54
Sylvius Deleboe, ... 116

Taylor, Jeremy, ... 251
Time, idea of, affected in dreaming, ... 61
Townsend, Colonel, Extraordinary case of, ... 227
Tragoponum Luteum, ... 48
Trance, ... 222

Urinary secretion, affected in sleep, ... 26

Valangin, Case related by, ... 249
Voice, affected in sleep-talking, ... 169

PAGE

Waking-Dreams, ... 196
Waller, Cases from his Treatise,.....85, 134
Warton, Mr., Anecdote of, ... 209
Wasse, Mr., his experiments, ... 27
Wellington, Duke of, ... 255
Welsh Girl, Case of a, ... 116
Wesley,..... 251
West Briton, Case from the, ... 158

Xenophon, Method recommended by, to prevent the limbs from being frost-bitten,..... 195

Yawning, ... 28

Zoonomia, Darwin's,..... 74
..... Case from,..... 170

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